ASBESTOS INSPECTION REPORT

FOR LANGLEY AIR FORCE BASE BUILDING 756 HAMPTON, VA 23665

Prepared for: Mr. Randy Born US Army Corps. Of Engineers PO Drawer 65490 Norfolk, VA Prepared by: Angela Mulleano Asbestos Inspector #002382 Marine Chemist Service, Inc. 11850 Tug Boat Lane Newport News, VA 23606

ASBESTOS INSPECTION

Background and Purpose

There has been a growing public awareness of the link between the inhalation of asbestos fibers and various diseases such as asbestosis, mesothelioma, lung and other cancers. As a result, the Asbestos Hazard Emergency Response Act (AHERA 40 CFR Part 763), was established.

The necessary components of an AHERA inspection require the accredited inspector to visually inspect and assess the condition of all known or assumed friable asbestos-containing building materials (ACBM); to visually inspect non-friable ACBM and touch it to determine friability, and to identify homogeneous areas of friable materials.

The National Emission Standards for Hazardous Air Pollutants (NESHAPS) require thorough inspections for asbestos in structures before the renovation or demolition of those structures.

In order to comply with NESHAPS, buildings to be renovated or demolished must be thoroughly inspected for asbestos containing building materials. Marine Chemist Service, Inc. follows the AHERA sampling protocol for interior surveys and the old Virginia standard for roof surveys.

In compliance with Virginia Regulations, Marine Chemist Service Inc. performed an asbestos inspection of **Building 756**, **Langley Air Force Base**, **Hampton**, **VA**. On March 28, 29, April 3, 4, 12, 15, 19, 23, 27, 2001 for the US Army Engineer District, Norfolk, VA. The results of this inspection are as follows:

Document Review and On-Site Survey

Blueprints were provided for the inspection; however, sketches were made of current floor plan at the time of the survey to indicate sample/asbestos material locations.

There was no evidence that a previous survey had been conducted.

Visual Inspection

A visual inspection was performed on the suspect asbestos-containing materials found in the survey areas.

Bulk Sampling

Bulk sampling was performed on suspected asbestos-containing materials found in building 756 and the minimum numbers of samples were taken.

Bulk samples were taken penetrating all layers of the material. The samples were at least I cubic centimeter and were placed in a sealed container at the time of collection. All precautions were taken to prevent exposure to those present in or around the facility during the collection of samples.

All sampling locations were patched with an encapsulant after the sampling was complete.

The minimum number of samples was taken for distinct type of suspect asbestos material.

Samples listed below are grouped into homogeneous areas. Homogeneous areas are areas that are uniform by color, texture, construction/application date and general appearance.

Some sample results in the % asbestos column may be displayed in this report with a slash between two numbers, (#/#). The first number represents the first material listed under the material location/description and the second number represents the second material listed.

When N/A is placed in the friable category, it means the sample tested negative - (0) or less than one percent - ($\leq 1\%$) for asbestos and the friable description does not apply.

Samples were analyzed utilizing Polarized Light Microscopy (PLM) with dispersion staining. The results are as follows:

SAMPLE	MATERIAL	%	Y/N
NO.	LOCATION/DESCRIPTION	ASBESTOS	FRIABLE
1	Roof membrane material, 1st floor roof	0%	N/A
1-A	Roof membrane material, 1st floor roof	0%	N/A
1-B	Roof membrane material, 1 st floor roof	0%	N/A
2	Wall flashing material, 1 st floor roof	0%	N/A
2-A	Wall flashing material, 1 st floor roof	0%	N/A
3	Wall flashing material, 1st floor roof	0%	N/A
3-A	Wall flashing material, 1 st floor roof	0%	N/A
4	Vent pipe material, 1st floor roof	0%	N/A
4-A	Vent pipe material, 1st floor roof	0%	N/A

SAMPLE	MATERIAL	%	YA
NO.	<u>LOCATION/DESCRIPTION</u>	<u>ASBESTOS</u>	FRIABLE
5	Gravel stop material, 1st floor roof	0%	N/A
5-A	Gravel stop material, 1st floor roof	0%	N/A
6	Roof cement material, 1st floor roof	10%	N
7	Roof membrane material, 2 nd floor roof	0%	N/A
7-A	Roof membrane material, 2 nd floor roof	0%	N/A
7-B	Roof membrane material, 2 nd floor roof	0%	N/A
8	Parapet wall flashing material, 2 nd floor roof	0%	N/A
8-A	Parapet wall flashing material, 2 nd floor roof	0%	N/A
9	Caulking material, 2 nd floor roof	10%	N
10	Pitch pocket material, 2 nd floor roof	0%	N/A
10-A	Pitch pocket material, 2 nd floor roof	0%	N/A
11	White sealer material on A/C unit, 2 nd floor roof	0%	N/A
11-A	White sealer material on A/C unit, 2 nd floor roof	0%	N/A
12	Black sealer material on A/C unit, 2 nd floor roof	15%	N
13	Roof cement material, 2 nd floor roof	0%	N/A
13-A	Roof cement material, 2 nd floor roof	0%	N/A
14	Gray roof coating material on hanger roof	10%	N
15	Wire sealer on hanger roof	0%	N/A
15-A	Wire sealer on hanger roof	0%	N/A
16	Roof membrane / felt paper, utility shack	0%	N/A
16-A	Roof membrane / felt paper, utility shack	0%	N/A
16-B	Roof membrane / felt paper, utility shack	0%	N/A
17	Wall flashing material, utility shack	0%	N/A
17A	Wall flashing material, utility shack	0%	N/A
18	Gravel stop material, utility shack	0%	N/A
18-A	Gravel stop material, utility shack	0%	N/A
19	Roof cement material, utility shack	0%	N/A
19-A	Roof cement material, utility shack	0%	N/A
20	Roof shingle on exterior mechanical room	10%	N
69	Roof shingle on shack inside of hanger	0%	N/A
69-A	Roof shingle on shack inside of hanger	0%	N/A
69-B	Roof shingle on shack inside of hanger	0%	N/A
21	Roof membrane material	0%	N/A
21-A	Roof membrane material	0%	N/A
21-B	Roof membrane material	0%	N/A
22	Gravel stop material	0%	N/A
22-A	Gravel stop material	0%	N/A
23	Parapet wall material	0%	N/A
23-A	Parapet wall material	0%	N/A

SAMPLE	MATERIAL.	9%	YA		
NO.	LOCATION/DESCRIPTION	<u>ASBESTOS</u>	FRIABLE		
24	Roof cement material	0%	N/A		
24-A	Roof cement material	10%	N		
25	Roof coating material on small hanger 0%				
25-A	Roof coating material on small hanger	10%	N		
25-B	Roof coating material on small hanger	10%	N		
26	Pink and green carpet adhesive / green floor tile/ adhesive	0/10/0%	N		
26-A	Pink and green carpet adhesive / green floor tile/ adhesive	0/0/10%	${f N}$		
26-B	Pink and green carpet adhesive / green floor tile/ adhesive	0/10/0%	N		
45	Gray carpet adhesive/ floor tile/ adhesive	0%	N/A		
45-A	Gray carpet adhesive/ floor tile/ adhesive	0%	N/A		
45-B	Gray carpet adhesive/ floor tile/ adhesive	0%	N/A		
49	Red and blue carpet adhesive / floor tile /adhesive/ floor tile/	0/10/0/10/0%	N		
	adhesive				
50	Floor tile / adhesive / floor tile / adhesive bottom of sample #49	0/0/0/10%	N		
28	Tan floor tile / adhesive under green and pink carpet	0%	N/A		
28-A	Tan floor tile / adhesive under green and pink carpet	0/10%	N		
28-B	· · · · · · · · · · · · · · · · · · ·		N		
37	12x12 Tan floor tile/ adhesive /flooring material/ adhesive	0%	N/A		
37-A	12x12 Tan floor tile/ adhesive /flooring material/ adhesive	0/0/10/10%	N		
37-B	37-B 12x12 Tan floor tile/ adhesive /flooring material/ adhesive		N		
54	Tan floor tile / adhesive	0/ 10%	N		
29	12x12 Pink floor tile/ adhesive / floor tile / adhesive	0%	N/A		
29-A	12 x12 Pink floor tile/ adhesive / floor tile / adhesive	0%	N/A		
29-B	12x12 Pink floor tile/ adhesive / floor tile / adhesive	0%	N/A		
30	Bottom layer of floor tile / adhesive of sample 29	10/10%	N		
30-A	Bottom layer of floor tile / adhesive of sample 29-A	10/10%	N		
30-B	Bottom layer of floor tile / adhesive of sample 29-B	10/10%	N		
33	12x12 Red floor tile / adhesive / green floor tile/ adhesive	10/10/10/10%	N		
33-A	12x12 Red floor tile / adhesive / green floor tile/ adhesive	10/10/10/10%	N		
33-B	12x12 Red floor tile / adhesive / green floor tile/ adhesive	10/10/10/10%	N		
66	12x12 green floor tile/ adhesive	0/10%	N		
32	9x9 Brown floor tile / adhesive	10/10%	N		
32-A	9x9 Brown floor tile / adhesive	10/10%	N		
32-B			N		
47	9x9 floor tile/ adhesive	10/10%	N		
34	Pink flooring material	0%	N/A		
34-A	Pink flooring material	0%	N/A		
34-B	Pink flooring material	0%	N/A		

SAMPLE	MATERIAL	<u> </u>	<u>Y/N</u>
NO.	LOCATION/DESCRIPTION	ASBESTOS	FRIABLE
35	Ceramic floor tile adhesive, men's bathroom	0%	N/A
35-A	Ceramic floor tile adhesive, men's bathroom	0%	N/A
35-B	Ceramic floor tile adhesive, women's bathroom	0%	N/A
27	Floor filler under green floor tile and adhesive sample 26	0%	N/A
27-A	Floor filler under ceramic floor tile	10%	N
27-B	Floor filler under ceramic floor tile	0%	N/A
31	Gray floor filler/ floor tile/ adhesive under ceramic floor tile	0%	N/A
31-A	Gray floor filler/ floor tile/ adhesive under ceramic floor tile	0%	N/A
31-B	Gray floor filler/ floor tile/ adhesive under ceramic floor tile	0%	N/A
36	Red floor filler material, men's bathroom	0%	N/A
36-A	Red floor filler material, men's bathroom	0%	N/A
36-B	Red floor filler material, men's bathroom	0%	N/A
68	Floor filler material	0%	N/A
68-A	Floor filler material	0%	N/A
68-B	Floor filler material	0%	N/A
38	Gray stair treads adhesive	0%	N/A
38-A	Gray stair treads adhesive	0%	N/A
46	46 Gray base cove/ adhesive		N/A
46-A	Gray base cove/ adhesive	0%	N/A
39	2x2 white ceiling tile patch	0%	N/A
" 39-A	2x2 white ceiling tile patch	0%	N/A
61	2x2 white ceiling tile patch	0%	N/A
61-A	2x2 white ceiling tile patch	0%	N/A
40	2x2 white ceiling tile	0%	N/A
40-A	2x2 white ceiling tile	0%	N/A
42	2x2 white ceiling tile	0%	N/A
42-A	2x2 white ceiling tile	0%	N/A
44	2x2 white ceiling tile, 2 nd floor	0%	N/A
44-A	2x2 white ceiling tile, 2 nd floor	0%	N/A
48	2x2 white ceiling tile	0%	N/A
48-A	2x2 white ceiling tile	0%	N/A
67	2x2 white ceiling tile	0%	N/A
67-A	2x2 white ceiling tile	0%	N/A
41	2x4 white ceiling tile in 1st floor air handling room	10%	Y
41-A	· · · · · · · · · · · · · · · · · · ·		Y
43	2x4 white ceiling tile	0%	N/A
43-A	2x4 white ceiling tile	0%	N/A
51	2x4 white ceiling tile	0%	N/A
51-A	2x4 white ceiling tile	0%	N/A
52	2x4 white ceiling tile	0%	N/A
52-A	2x4 white ceiling tile	0%	N/A

SAMPLE	MATERIAL LOCATION DESCRIPTION	2/2	Y/N		
NO.	LOCATION/DESCRIPTION	ASBESTOS	ERIABLE		
53	2x4 white ceiling tile	0%	N/A		
53-A	2x4 white ceiling tile	0%	N/A		
65	2x4 white wall tiles 0%				
65-A	2x4 white wall tiles 0%				
71	1'x1' ceiling tile / Adhesive 0%				
71-A	1'x1' ceiling tile / Adhesive	5/5%	Y		
55	Plaster ceiling material	0%	N/A		
55-A	Plaster ceiling material	0%	N/A		
55-B	Plaster ceiling material	0%	N/A		
63	2'x5' plaster hanger ceiling	0%	N/A		
63-A	2'x5' plaster hanger ceiling	0%	N/A		
63-B	2'x5' plaster hanger ceiling	0%	N/A		
59	Drywall / joint compound material	0%	N/A		
59-A	59-A Drywall / joint compound material		N/A		
59-B	Drywall / joint compound material	0%	N/A		
56	Sealer on fiber glass duct	10%	N		
64	Sealer on A/C unit	10%	N		
58			N		
57	8" pipe insulation and lagging material	25%	Y		
62	8" mudded elbow/ lagging material	35%	Y		
70	2" steam pipe insulation and lagging	30%	Y		
60	Brown adhesive on plaster wall behind drywall 2 nd floor	0%	N/A		
60-A	Brown adhesive on plaster wall behind drywall 2 nd floor	0%	N/A		
72	Exterior window caulking material	5%	N		
73	Exterior door caulking material	0%	N/A		
73-A	Exterior door caulking material	0%	N/A		
74	Exterior window caulking material	0%	N/A		
74-A	Exterior window caulking material	0%	N/A		
75			N/A		
75-A	Exterior window glazing material	5%	N		
76	Panel above windows	20%	N		
77	Brown stucco material	0%	N/A		
77-A	Brown stucco material	0%	N/A		
77-B	Brown stucco material	0%	N/A		

- 1. Sample #6 Roof cement material, 1st floor roof, contains 10% asbestos. This material is considered non-friable.
- 2. Sample #9 caulking material, 2nd floor roof, contains 10% asbestos. This material is considered non-friable.
- 3. Sample #12 black sealer material on A/C unit, 2nd floor roof, contains 15% asbestos. This material is considered non-friable.
- 4. Sample #14, gray roof coating on hanger roof, contains 10% asbestos. This material can be located on both side and center roof of the hanger. This roof coating material is considered non-friable.
- 5. Sample #20, Roof shingle, contains 10% asbestos. This material is considered non-friable.
- 6. Samples #25-A and #25-B, Roof coating material on small hanger, contains 10% asbestos. This material is considered non-friable.
- 7. Samples #26, #26-A and #26-B were taken of pink and green carpet adhesive/ green floor tile/ adhesive. The green floor tile and adhesive contains 10% asbestos. This material is considered non-friable.
- 8. Samples #27-A were taken of floor filler under ceramic floor tile, contains 10% asbestos. The laboratory indicated they were unable to separate the floor filler material from the adhesive. The black adhesive contained 10% asbestos. However two other samples were taken of the same material and tested negative for asbestos. This material is non-friable.
- 9. Samples #28-A and #28-B were taken of tan floor tile / adhesive under green and pink carpet. The tan floor tile tested negative for asbestos, however the adhesive contains 10% asbestos. This material is considered non-friable. There was no carpet adhesive to test.
- 10. Samples #29, #29-A and 29-B were taken of pink floor tile / adhesive / floor tile/ adhesive, Due to the multiple layers of flooring material, this sample had to be divided into 2 samples for laboratory protocol. All layers of this portion of the sampled material tested negative for asbestos.
- 11. Samples #30, 30-A and 30-B were taken of floor tile / adhesive the bottom layers of samples #29, 29-A and 29-B. This bottom portion of tile material and adhesive both contains 10% asbestos. All of these flooring materials are considered non-friable.

- 12. Samples #32, #32-A and #32-B were taken of 9x9 brown floor tile and adhesive. Both the brown floor tile and the adhesive contain 10% asbestos. This material is considered non-friable.
- 13. Samples # 33, #33-A and # 33-B were taken of red floor tile / adhesive /green floor tile / adhesive, all 4 layers of this flooring material contained 10% asbestos. This material is considered non-friable.
- 14. Samples #37, #37-A and # 37-B were taken of tan floor tile/ adhesive/ flooring material/ adhesive. Sample #37 tested negative for asbestos. Samples #37-A and #37-B tan floor tile and adhesive top 2 layers tested negative for asbestos, however the flooring material and adhesive the bottom 2 layers of #37-A and #37-B contains 10% asbestos. This material is considered non-friable.
- 15. Samples # 41 and #41-A- were taken of 2x4 white ceiling tile. This ceiling material contains 10% asbestos. This material is considered friable.
- 16. Samples #47 were taken of 9x9 gray floor tile/ adhesive. Both the floor tile and the adhesive contains 10% asbestos. Both of these materials are considered non-friable.
- 17. Samples #49 was taken of red and blue carpet adhesive/ floor tile/ adhesive/ floor tile / adhesive. Both carpet adhesive and top layers of floor tile adhesives tested negative for asbestos. However both layers of floor tiles contains 10% asbestos. This material is considered non-friable. This sample had to be divided into 2 samples for laboratory protocol.
- 18. Sample #50 was taken of the bottom layers of sample#49, floor tile/adhesive/ floor tile / adhesive. The 1st three layers of this portion of the sample (floor tile/adhesive/floor tile) tested negative for asbestos. However the bottom layer of this sample, floor tile adhesive contains 10% asbestos. This material is considered non-friable.
- 19. Sample #54 was taken of tan floor tile/ adhesive. The floor tile tested negative. However the adhesive contains 10% asbestos. This material is considered non-friable.
- 20. Sample #56 was taken of sealer on fiberglass duct insulation. The sealer contains 10% asbestos. This sealer material can be located throughout the building. This material is considered non-friable.
- 21. Sample #57 was taken of 8" pipe insulation and lagging material. This pipe insulation contains 25% asbestos. This pipe insulation can be located in various locations throughout the building. This material is considered friable.

- 22. Sample #58 was taken of brown sealer on metal duct. This sealer material contains 10% asbestos. This sealer can be located on ductwork without the fiberglass duct insulation. This material is considered non-friable.
- 23. Sample #62 was taken of 8" mudded elbow material. This material contains 35% asbestos. This elbow insulation can be located in various locations throughout the building. This material is considered friable.
- 24. The 8" steam pipe insulation / lagging and mudded elbow insulation material tested positive. This main steam piping insulation feeds throughout the building. This material is considered friable.
- 25. Sample #64 was taken of sealer on A/C unit. This sealer material contains 10% as bestos. This sealer material is considered non-friable.
- 26. Sample #66 was taken of 12x12 green floor tiles/ adhesive. The floor tile tested negative for asbestos. However the adhesive contains 10% asbestos. This material is considered non-friable.
- 27. Sample #70 was taken of 2" steam pipe insulation material. This pipe insulation contains 30% asbestos. This steam pipe insulation can be located in various locations throughout the building. This material is considered friable.
- 28. This main steam piping insulation feeds throughout the building. This material is considered friable.
- 29. Samples #71 and #71-A were taken of 1'x1' ceiling tiles/ adhesives (above a 2x2 drop ceiling tiles). Sample #71 tested negative for asbestos, However, Sample #71-A, the ceiling tile contains 5% mixture of chrysotile and amosite asbestos. The adhesive for sample #71-A contains 5% amosite asbestos. This 1'x1' ceiling tile is considered friable. The 2x2 drop ceiling tile (below the asbestos 1'x1' ceiling tile) has to be considered asbestos contaminated ceiling tiles, due to the deterioration of the 1"x1" ceiling tiles.
- 30. Samples #75 and #75-A were taken of exterior window glazing material. Sample #75 tested negative for asbestos, However, sample #75-A contains 5% asbestos. This glazing material is considered non-friable.
- 31. Sample #76 was taken of panel above window, the material is known as asbestos transite, which can be located behind metal cover, this asbestos transite material contains 20% asbestos. This material is considered non-friable.

- 32. There are various types of doors within the building. Extensive damage would result in a large quantity of the doors to obtain the required samples. Metal and wood insulated doors must be considered asbestos until the additional sampling is conducted.
- 33. Due to non-access of the vault area of building 756 (restricted area) no samples were taken. On account of no analytical results being possible, any potential suspect's materials are considered asbestos, until sampling is conducted to positively identify.
- 34. Based upon the laboratory results of all floor tiles and adhesives samples that were taken, single layered or multiple layered, tested positives for asbestos within the flooring materials. Therefore for removal purposes, all floor tiles and adhesives should be considered asbestos.
- 35. The EPA definition of friable material is one that contains more than 1% asbestos by weight. And that can be crumbled, pulverized or reduced to power by hand pressure when dry, or under normal use or maintenance emits, or can be expected to emit asbestos fibers into the air; these material may become friable during removal. Proper precautions should be taken as not to render these materials friable.

Estimated Quantities of Asbestos Materials

ASBESTOS CONTAINING MATERIALS	QUANTITY	COST/ PER/ UNIT	REMOVAL COST
Roof cement 1 st floor roof	984 linear ft.	\$ 8.00	\$ 7,872.00
Roof caulking material 2 nd floor roof	90 linear ft.	\$ 8.00	\$ 720.00
Black sealer on A/C unit 2 nd floor	196 Sq. ft.	\$ 8.00	\$ 1,568.00
Gray roof coating (small and large hanger roof)	29,067 Sq. ft.	\$ 3.00	\$ 87,201.00
Roof shingle	60 Sq. ft.	\$ 4.00	\$ 240.00
Pink & green carpet adhesive/green floor tile/ tile/adhesive	3,571 Sq. ft.	\$ 2.00	\$ 7,142.00
9x9 floor tile and adhesive	954 Sq. ft.	\$ 2.00	\$ 1,908.00
Red floor tile/ adhesive/green floor tile /adhesive	3,552 Sq. ft.	\$ 2.00	\$ 7,104.00
Tan floor tile/adhesive/flooring material/adhesive	4,684 Sq. ft.	\$ 2.00	\$ 9,368.00
Red & blue carpet adhesive/floor tile/ adhesive/ floor tile/ adhesive/floor tile/adhesive	1,185 Sq. ft.	\$ 2.00	\$ 2,370.00
Brown and white Sealer on fiberglass duct / A/C units	7,308 Sq. ft.	\$ 2.00	\$ 14,616.00
2x4 white ceiling tiles	252 Sq. ft.	\$ 2.00	\$ 504.00
Pipe insulation/ elbows	1,674 linear ft.	\$ 40.00	\$ 69,960.00
Exterior window caulking material	494 linear ft.	\$ 2.00	\$ 988.00
Windows panels	36 Sq. ft.	\$ 2.00	\$ 72.00
Exterior window glazing material	552 linear ft.	\$ 2.00	\$ 1,104.00
1'x1' ceiling tiles/ adhesive	1,248 Sq. ft.	\$ 3.50	\$ 4,368.00
2x2 contaminate ceiling tiles under 1'x1' ceiling tiles	1,248 Sq. ft.	\$ 2.00	\$ 2,496.00
Total Estimate			\$2,209,729.00

Certification

The contractor for the survey of Building 756 of Langley Air Force Base, Hampton VA was:

MARINE CHEMIST SERVICE, INC. 11850 Tug Boat Lane Newport News, Virginia 23606

The team leader responsible for quality control coordination of inspections and adherence to inspection protocols is:

Colleen Becker CIH.

MARINE CHEMIST SERVICE, INC.

11850 Tug Boat Lane
Newport News, Virginia 23606

The inspector who physically inspected the building and who has received EPA-Approved training is:

Angela Mulleano VA Asbestos Inspector License # 002380

The AIHA and NVLAP Accredited laboratory selected to analyze the bulk samples for asbestos content by PLM, using the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples (Appendix A to Subpart F in 40 CFR Part 763) was:

MARINE CHEMIST SERVICE, INC. 11850 Tug Boat Lane Newport News, Virginia 23606

GENERAL LEGEND

- O- Sample number/location non asbestos
- Δ Sample number/location contains asbestos

GENERAL NOTES

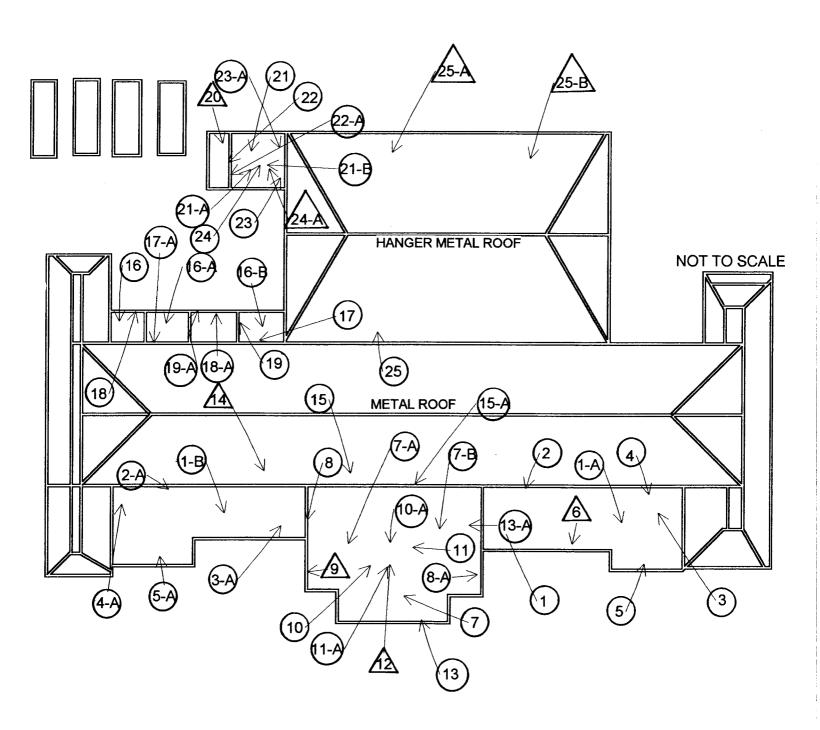
- 1. Sample #6 Roof cement material, 1st floor roof, contains 10% asbestos. This material is considered non-friable.
- 2. Sample #9 caulking material, 2nd floor roof, contains 10% asbestos. This material is considered non-friable.
- 3. Sample #12 black sealer material on A/C unit, 2nd floor roof, contains 15% asbestos. This material is considered non-friable.
- 4. Sample #14, gray roof coating on hanger roof, contains 10% asbestos. This material can be located on both side and center roof of the hanger. This roof coating material is considered non-friable.
- 5. Sample #20, Roof shingle, contains 10% asbestos. This material is considered non-friable.
- 6. Samples #25-A and #25-B, Roof coating material on small hanger, contains 10% asbestos. This material is considered non-friable.
- Samples #26, #26-A and #26-B were taken of pink and green carpet adhesive/ green floor tile/ adhesive. The green floor tile and adhesive contains 10% asbestos. This material is considered non-friable.
- 8. Samples #27-A were taken of floor filler under ceramic floor tile, contains 10% asbestos. The laboratory indicated they were unable to separate the floor filler material from the adhesive. The black adhesive contained 10% asbestos. However two other samples were taken of the same material and tested negative for asbestos. This material is non-friable.

- 9. Samples #28-A and #28-B were taken of tan floor tile / adhesive under green and pink carpet. The tan floor tile tested negative for asbestos, however the adhesive contains 10% asbestos. This material is considered non-friable. There was no carpet adhesive to test.
- 10. Samples #29, #29-A and 29-B were taken of pink floor tile / adhesive / floor tile / adhesive, Due to the multiple layers of flooring material, this sample had to be divided into 2 samples for laboratory protocol. All layers of this portion of the sampled material tested negative for asbestos.
- 11. Samples #30, 30-A and 30-B were taken of floor tile / adhesive the bottom layers of samples #29, 29-A and 29-B. This bottom portion of tile material and adhesive both contains 10% asbestos. All of these flooring materials are considered non-friable.
- 12. Samples #32, #32-A and #32-B were taken of 9x9 brown floor tile and adhesive. Both the brown floor tile and the adhesive contain 10% asbestos. This material is considered non-friable.
- 13. Samples # 33, #33-A and # 33-B were taken of red floor tile / adhesive /green floor tile / adhesive, all 4 layers of this flooring material contained 10% asbestos. This material is considered non-friable.
- 14. Samples #37, #37-A and #37-B were taken of tan floor tile/ adhesive/ flooring material/ adhesive. Sample #37 tested negative for asbestos. Samples #37-A and #37-B tan floor tile and adhesive top 2 layers tested negative for asbestos, however the flooring material and adhesive the bottom 2 layers of #37-A and #37-B contains 10% asbestos. This material is considered non-friable.
- 15. Samples # 41 and #41-A- were taken of 2x4 white ceiling tile. This ceiling material contains 10% asbestos. This material is considered friable.
- 16. Samples #47 were taken of 9x9 gray floor tile/ adhesive. Both the floor tile and the adhesive contains 10% asbestos. Both of these materials are considered non-friable.
- 17. Samples #49 was taken of red and blue carpet adhesive/ floor tile/ adhesive/ floor tile / adhesive. Both carpet adhesive and top layers of floor tile adhesives tested negative for asbestos. However both layers of floor tiles contains 10% asbestos. This material is considered non-friable. This sample had to be divided into 2 samples for laboratory protocol.
- 18. Sample #50 was taken of the bottom layers of sample#49, floor tile/adhesive/ floor tile / adhesive. The 1st three layers of this portion of the sample (floor tile/adhesive/floor tile) tested negative for asbestos. However the bottom layer of this sample, floor tile adhesive contains 10% asbestos. This material is considered non-friable.
- 19. Sample #54 was taken of tan floor tile/ adhesive. The floor tile tested negative. However the adhesive contains 10% asbestos. This material is considered non-friable.

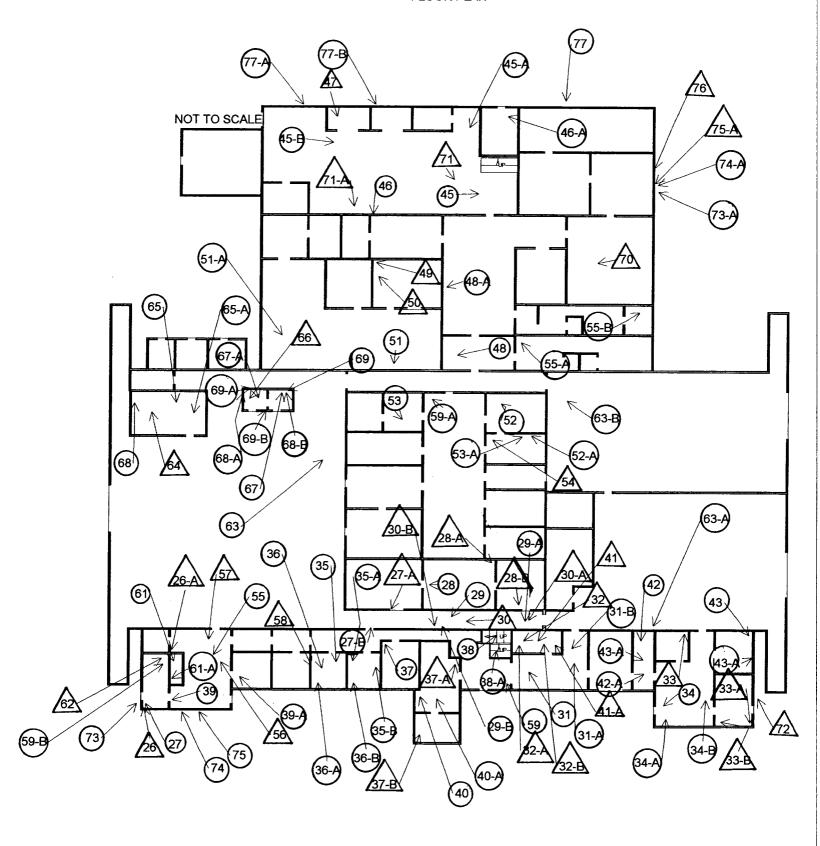
- 20. Sample #56 was taken of sealer on fiberglass duct insulation. The sealer contains 10% asbestos. This sealer material can be located throughout the building. This material is considered non-friable.
- 21. Sample #57 was taken of 8" pipe insulation and lagging material. This pipe insulation contains 25% asbestos. This pipe insulation can be located in various locations throughout the building. This material is considered friable.
- 22. Sample #58 was taken of brown sealer on metal duct. This sealer material contains 10% asbestos. This sealer can be located on ductwork without the fiberglass duct insulation. This material is considered non-friable.
- 23. Sample #62 was taken of 8" mudded elbow material. This material contains 35% asbestos. This elbow insulation can be located in various locations throughout the building. This material is considered friable.
- 24. The 8" steam pipe insulation / lagging and mudded elbow insulation material tested positive. This main steam piping insulation feeds throughout the building. This material is considered friable.
- 25. Sample #64 was taken of sealer on A/C unit. This sealer material contains 10% as bestos. This sealer material is considered non-friable.
- 26. Sample #66 was taken of 12x12 green floor tiles/ adhesive. The floor tile tested negative for asbestos. However the adhesive contains 10% asbestos. This material is considered non-friable.
- 27. Sample #70 was taken of 2" steam pipe insulation material. This pipe insulation contains 30% asbestos. This steam pipe insulation can be located in various locations throughout the building. This material is considered friable.
- 28. This main steam piping insulation feeds throughout the building. This material is considered friable.
- 29. Samples #71 and #71-A were taken of 1'x1' ceiling tiles/ adhesives (above a 2x2 drop ceiling tiles). Sample #71 tested negative for asbestos, However, Sample #71-A, the ceiling tile contains 5% mixture of chrysotile and amosite asbestos. The adhesive for sample #71-A contains 5% amosite asbestos. This 1'x1' ceiling tile is considered friable. The 2x2 drop ceiling tile (below the asbestos 1'x1' ceiling tile) has to be considered asbestos contaminated ceiling tiles, due to the deterioration of the 1"x1" ceiling tiles.

- 30. Samples #75 and #75-A were taken of exterior window glazing material. Sample #75 tested negative for asbestos, however, sample #75-A contains 5% asbestos. This glazing material is considered non-friable.
- 31. Sample #76 was taken of panel above window, the material is known as asbestos transite, which can be located behind metal cover, this asbestos transite material contains 20% asbestos. This material is considered non-friable.
- 32. There are various types of doors within the building. Extensive damage would result in a large quantity of the doors to obtain the required samples. Metal and wood insulated doors must be considered asbestos until the additional sampling is conducted.
- 33. Due to non-access of the vault area of building 756 (restricted area) no samples were taken. On account of no analytical results being possible, any potential suspect's materials are considered asbestos, until sampling is conducted to positively identify.
- 34. Based upon the laboratory results of all floor tiles and adhesives samples that were taken, single layered or multiple layered, tested positives for asbestos within the flooring materials. Therefore for removal purposes, all floor tiles and adhesives should be considered asbestos.
- 35. The EPA definition of friable material is one that contains more than 1% asbestos by weight. And that can be crumbled, pulverized or reduced to power by hand pressure when dry, or under normal use or maintenance emits, or can be expected to emit asbestos fibers into the air; these material may become friable during removal. Proper precautions should be taken as not to render these materials friable.
- 36. Sample locations are approximate.
- 37. The sketches are not to scale

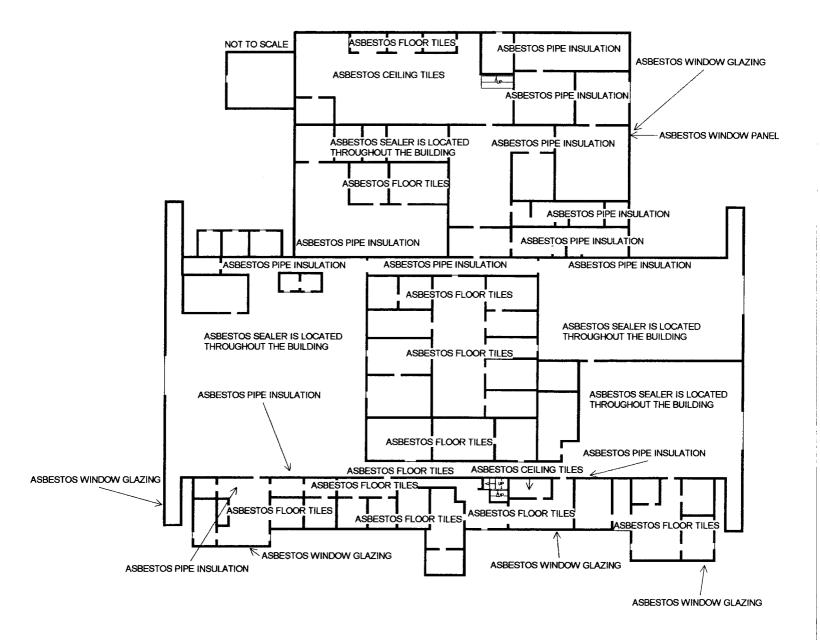
LANGLEY AIR FORCE BASE BUILDING 756, HAMPTOM, VA ROOF PLAN



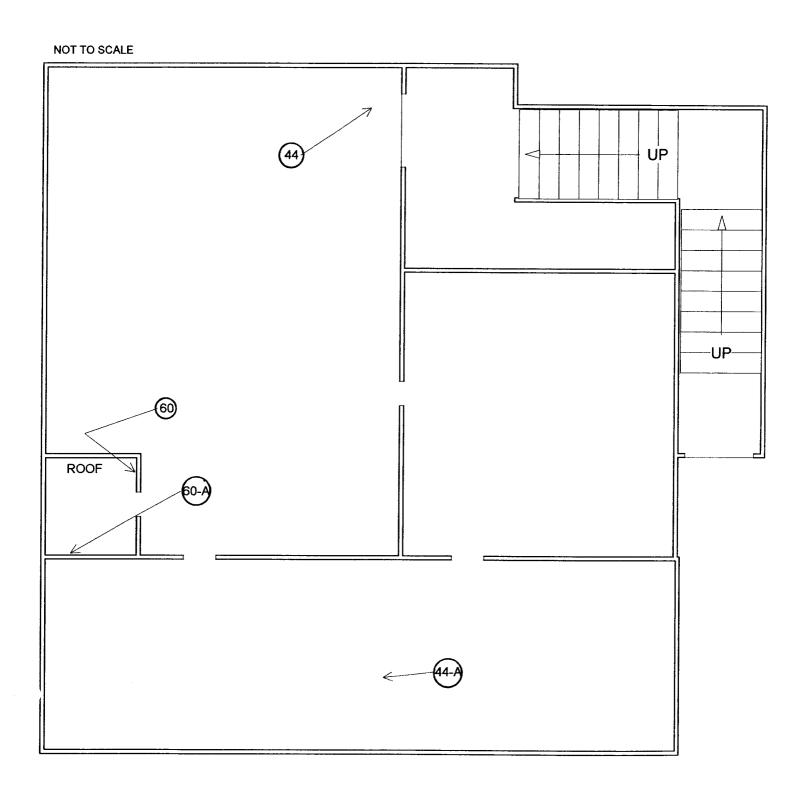
LANGLEY AIR FORCE BASE BUILDING 755 HAMPTON, VA FLOOR PLAN



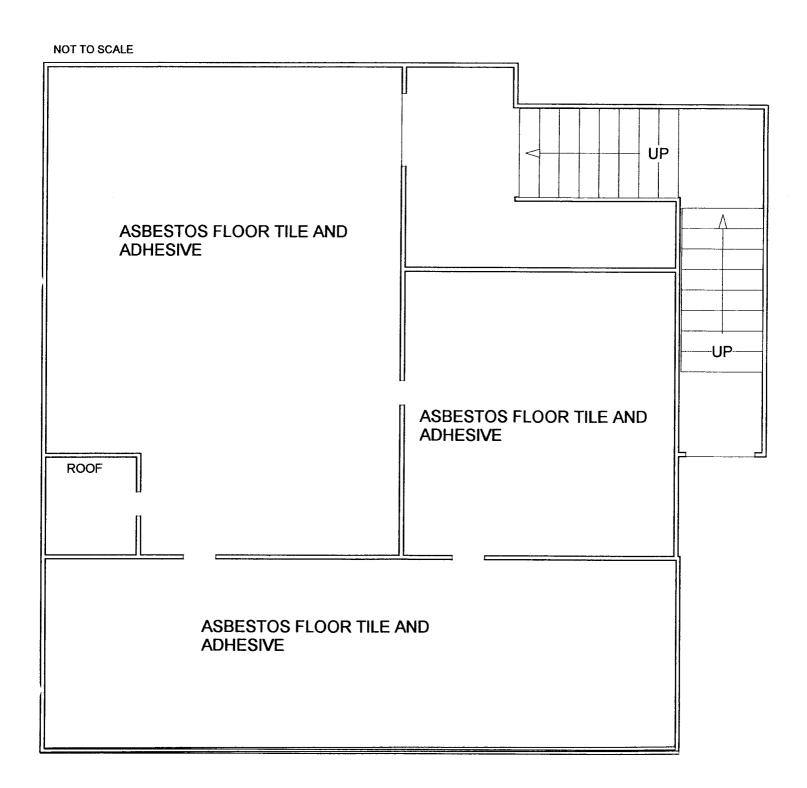
LANGLEY AIR FORCE BASE BUILDING 755 HAMPTON, VA FLOOR PLAN



LANGLEY AIR FORCE BASE BUIDING 756 HAMPTON, VA 2ND FLOOR PLAN



LANGLEY AIR FORCE BASE BUIDING 756 HAMPTON, VA 2ND FLOOR PLAN







Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027

Lab	Report	No	34208	

Report Date October 9, 2000

Customer:

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

ROZDIAKORINIAWSIS

(1)	Sample #1.	Roof Membrane Material,	1 st	Floor Roof.
•	.,	Dampie " 1,	TATOOR TATOURING TATOOR PORT		T TOOL TOOL

Macroscopic: (1) Approximately 50% of this sample is brown, fibrous, and particulate material.

(2) Approximately 50% of this sample is black, tar material.

The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). Microscopic: (1) The remaining 30% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of non-asbestiform materials (i.e. 20% cellulose,

20% fiberglass). The remaining 60% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #2, Wall Flashing Material, 1st Floor Roof. **(2)**

> Macroscopic: Approximately 20% of this sample is brown, fibrous, particulate material. (1)

Approximately 80% of this sample is black, tar material. (2)

Microscopic: (1) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of non-asbestiform materials (i.e. 20% cellulose.

20% fiberglass). The remaining 60% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #3, Curb Flashing Material, 1st Floor Roof. (3)

Macroscopic:

(1) 100% of this sample is black, tar material. Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 20% cellulose, (1)

10% fiberglass). The remaining 70% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

Page 1 of 6





Sample	Description:
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LAFB, Bldg. 756 Job #00-041-S

Lab R	eport No.	34217	 _
Date_	October	11, 2000	

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

Macroscopic:	(1)	Approximately 80% of this sample is black, tar material.
-	(2)	Approximately 20% of this sample is brown, fibrous, and particulate material.
Microscopic:	(1)	The fibrous portion of this layer consists of non-asbestiform materials (i.e. 15% cellulose, 10% fiberglass). The remaining 75% of this layer is non-fibrous material.
	(2)	The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.
Total Asbestos	Percenta	age = No Asbestos Detected.

Microscopic:

Macroscopic:

Approximately 20% of this sample is brown, fibrous, and particulate material. **(2)** (1)

The fibrous portion of this layer consists of non-asbestiform materials (i.e. 15% cellulose, 10% fiberglass). The remaining 75% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #2A, Wall Flashing Material, 1st Floor Roof.

> Approximately 90% of this sample is black, tar material. **(1)**

(2) Approximately 10% of this sample is brown, fibrous, and particulate material.

Microscopic: The fibrous portion of this layer consists of non-asbestiform materials (1)

(i.e. 15% cellulose, 10% fiberglass). The remaining 75% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST





Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027

Lab	Report	No_	34208		
	_				

Report Date October 9, 2000

Customer:

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

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(4)	Comple #4	Vent Pipe Material.	1st Floor Doof
(4)	Samble #4.	vent Pine Material.	I Floor Root.

Macroscopic:

(1) 100% of this sample is black, tar material. Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 20% cellulose, **(1)**

10% fiberglass). The remaining 70% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #5, Gravel Stop Material, 1st Floor Roof. (5)

> Macroscopic: 100% of this sample is black, tar material. **(1)**

Microscopic: The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose, (1)

10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(6) Sample #6, Roof Cement Material, 1st Floor Roof.

Macroscopic: 100% of this sample is black, cement material. (1)

Microscopic: (1)Approximately 10% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

Sample #7, Roof Membrane Material, 2nd Floor Roof. **(7)**

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic: (1) The fibrous portion of this sample consists of a non-asbestiform material (i.e. 10% cellulose).

The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

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Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab Report No.	34217
-	

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

Date October 11, 2000

REPORT OF ANALYSIS

(4)	Sample #3 A	Curb Flashing Material	1st Floor Roof

Macroscopic:

- (1) Approximately 90% of this sample is black, tar material.
- (2) Approximately 10% of this sample is brown, fibrous, and particulate material.

Microscopic:

- The fibrous portion of this layer consists of non-asbestiform materials (i.e. 15% cellulose, 10% fiberglass). The remaining 75% of this layer is non-fibrous material.
- (2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(5) Sample #4A, Vent Pipe Material, 1st Floor Roof.

(1)

(1)

- Macroscopic:
- (1) 100% of this sample is black, tar material.
- Microscopic:
- The fibrous portion of this sample consists of non-asbestiform materials (i.e. 15% cellulose, 5% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(6) Sample #5A, Gravel Stop Material, 1st Floor Roof.

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 15% cellulose, 5% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST





Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027

Lab	Report	No	34208	

Report Date October 9, 2000

Customer:

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

RECORDERNMENTS

(8)	Sample #8	Darranet	Wall Flaching	2 nd Floor Roof.
(8)	Sample #8.	rarapet	wan riasning.	2 F100F R001.

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose,

10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(9) Sample #9, Caulking on Parapet Wall, 2nd Floor Roof.

Macroscopic:

(1) 100% of this sample is black, caulking material.

Microscopic:

Approximately 10% of this sample is chrysotile asbestos.

The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(10) Sample #10, Pitch Pocket Material, 2nd Floor Roof.

(1)

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material (i.e. 10% cellulose).

The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(11) Sample #11, White Sealer on A/C Unit, 2nd Floor Roof.

Macroscopic:

(1) Approximately 90% of this sample is gray, fibrous, and particulate material with foil backing

(2) Approximately 10% of this sample is yellow, fibrous material.

Microscopic:

(1) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 15% fiberglass).

The remaining 85% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 100% fiberglass).

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

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Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab	Report	No.	34217		

Date October 11, 2000

Customer:

Subpart F).

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to

REPORT OF ANALYSIS

				_
(7)	Sample #7 A	Roof Membrane	Matarial	2nd Floor Doof
1/)	Sample #/A.	KOOI WEIDIAHE	Maleiai.	Z FIOUI KOUI.

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 15% cellulose, 5% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(8) Sample #7B, Roof Membrane Material, 2nd Floor Roof.

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(9) Sample #8A, Parapet Wall Flashing, 2nd Floor Roof.

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

(1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(10) Sample # 10A, Pitch Pocket Material, 2nd Floor Roof.

Macroscopic:

(1)

100% of this sample is black, tar material.

Microscopic:

(1)

100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST





Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027

Lab	Report	No_	34208			
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Report Date October 9, 2000

Customer:

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

RAMPANDO BELLONES

Sample #12, Black Sealer on A/C Unit, 2nd Floor Roof. (12)

Macroscopic:

100% of this sample is black, sealer material. **(1)**

Microscopic:

Approximately 15% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material (i.e. 15 % fiberglass). The remaining 70% of this sample is non-fibrous material.

Total Asbestos Percentage = 15%.

(1)

Sample #13, Roof Cement on 2nd Floor Roof. (13)

Macroscopic:

100% of this sample is black, cement material. (1)

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose,

10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(14)Sample #14, Gray Roof Coating on Hangar Roof.

(1)

(1)

Macroscopic:

100% of this sample is gray, coating material. (1)

Microscopic:

Approximately 10% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 80% of this sample is non-fibrous material.

The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(15)Sample #15, Wire Sealer on Hangar Roof.

Macroscopic:

(1) 100% of this sample is black, sealer material.

Microscopic:

(1)

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

Page 4 of 6





Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab R	eport No.	34217	
Date	October	11 2000	

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(11)	Sample #11A,	White Sealer on A/C Un	it, 2 nd Floor Roof.
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Macroscopic: **(1)** Approximately 95% of this sample is gray, sealer material with foil backing.

> Approximately 5% of this sample is yellow, fibrous material. (2)

The fibrous portion of this layer consists of a non-asbestiform material Microscopic: (1)

(i.e. 15% fiberglass). The remaining 85% of this layer is non-fibrous material.

The fibrous portion of this layer consists of a non-asbestiform material **(2)** (i.e. 100% fiberglass).

Total Asbestos Percentage = No Asbestos Detected.

Sample #13A, Roof Cement, on 2nd Floor Roof. (12)

100% of this sample is black, cement material. Macroscopic: (1)

The fibrous portion of this sample consists of non-asbestiform materials Microscopic: (1)

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(13)Sample #15A, Wire Sealer on Hangar Roof.

Macroscopic: Approximately 40% of this sample is black, tar material. (1)

Approximately 60% of this sample is gray, sealer material. (2)

Microscopic: The fibrous portion of this layer consists of a non-asbestiform material (1)

(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

(2) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

ENVIRONMENTAL TESTING LABORATORY AND INDUSTRIAL HYGIENE SERVICES MARINE CHEMIST CERTIFICATIONS, ASBESTOS, OIL, WATER, WASTEWATER, LEAD, SOIL, HAZARDOUS WASTE SAMPLING AND ANALYSIS, NONDESTRUCTIVE TESTING, FEED WATER SUPPLY AND ANALYSIS, TRAINING CLASSES

Page 4 of 6





Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027

Lab Report No_	34208	
•		

October 9, 2000

Customer:

Report Date

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

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(16)	Sample #16	Roof Membrane.	Falt Daner	Hility Shack
1101	CHILING TIO.		. I CILI AIXI.	CLIMEN SHARES.

Approximately 10% of this sample is brown, fibrous, and particulate material. Macroscopic: (1)

(2) Approximately 90% of this sample is black, tar material.

Microscopic:

(1)The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of non-asbestiform materials (i.e. 10% cellulose, 5% fiberglass). The remaining 85% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(17)Sample #17, Wall Flashing Material, Utility Shack.

> Approximately 10% of this sample is brown, fibrous, and particulate material. Macroscopic: (1)

(2) Approximately 90% of this sample is black, tar material.

Microscopic: (1) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose).

The remaining 30% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of non-asbestiform materials (i.e. 10% cellulose,

10% fiberglass). The remaining 80% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(18)Sample #18, Gravel Stop Material, Utility Shack.

> Macroscopic: **(1)** 100% of this sample is black, tar material.

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose, Microscopic: (1)

10% fiberglass). The remaining 80% of this sample is non-fibrous material.

SIGNED:

Total Asbestos Percentage = No Asbestos Detected.

CHEMIST

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Sample	Descr	ription:
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LAFB, Bldg. 756 Job #00-041-S

Lab Report No.	34217
Date October	11, 2000

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(14)	Sample #16A,	Roof Men	nbrane, Felt Paper, Utility Shack.
` '	Macroscopic:	(1)	Approximately 90% of this sample is black, tar material with felt paper.
	•	(2)	Approximately 10% of this sample is brown, fibrous, and particulate material.
	Microscopic:	(1)	The fibrous portion of this layer consists of non-asbestiform materials
	.	ζ-,	(i.e. 15% cellulose, 15% fiberglass). The remaining 70% of this layer is
			non-fibrous material.
		(2)	The fibrous portion of this layer consists of a non-asbestiform material
		()	(i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.
	Total Asbestos	Percentag	ge = No Asbestos Detected.
(15)	Sample #16B. I	Roof Men	abrane, Felt Paper, Utility Shack.
()	Macroscopic:	(1)	Approximately 90% of this sample is black, tar material with felt paper.
		(2)	Approximately 10% of this sample is brown, fibrous, and particulate material.
	Microscopic:	(1)	The fibrous portion of this layer consists of non-asbestiform materials
		(-)	(i.e. 15% cellulose, 15% fiberglass). The remaining 70% of this layer is
			non-fibrous material.
		(2)	The fibrous portion of this layer consist of a non-asbestiform material
		(-)	(i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.
	Total Asbestos	Percentag	ge = No Asbestos Detected.
(16)	Sample #17A. V	Wall Flasi	ning Material, Utility Shack.
(20)	Macroscopic:	(1)	Approximately 90% of this sample is black, tar material.
		(2)	Approximately 10% of this sample is brown, fibrous and particulate material.
	Microscopic:	(1)	The fibrous portion of this layer consists of non-asbestiform materials
	was obsopie.	(1)	(i.e. 15% cellulose, 15% fiberglass). The remaining 70% of this layer is
			non-fibrous material.
		(2)	The fibrous portion of this layer consists of a non-asbestiform material
		(-)	(i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material,
	Total Asbestos	Percentag	e = No Asbestos Detected.
			SIGNED: Mua - Wheer
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Sample Description:

LAFB, Bldg. 756 MCS No. 00-041S PO No. DACA 65-00-P-0027 Lab Report No 34208

Report Date October 9, 2000

Customer:

Army Corps. of Engineers P.O. Drawer 65490 Langley AFB, Virginia 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

RECOUNTERS

(19) Sample #19, Roof Cement Material, Utility Shack.

(1)

Macroscopic:

(1) 100% of this sample is black, cement material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials (i.e. 10% cellulose,

10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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Method Detection Limit = <1% Asbestos.

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Page 6 of 6





Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab Report No.	34217
Date October	11, 2000

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(17) Sample #18A, Gravel Stop Material, Utility Shack.

(1)

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 15% cellulose, 10% fiberglass). The remaining 75% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(18) Sample #19A, Roof Cement Material, Utility Shack.

(1)

Macroscopic:

(1) 100% of this sample is black, cement material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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Method Detection Limit = <1% Asbestos.

SIGNED:

CHEMIST





Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab Report No.	34213	
-		

Customer:

Date October 11, 2000

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

,	(1)	\ Same	nle #20) Poof	Shingle
() Sami	DIÇ #ZU	<i>)</i> , K001	Sningle

Macroscopic: (1)

(1) 100% of this sample is black, layered tar material with gravel.

Microscopic: (1) Approximately 10% of this sample is chrysotile asbestos. The remaining

fibrous portion of this sample consists of non-asbestiform materials

(i.e. 20% fiberglass, 10% wollastonite). The remaining 60% of this sample

is non-fibrous material.

Total Asbestos Percentage = 10%.

(2) Sample #21, Roof Membrane.

Macroscopic: (1) Approximately 90% of this sample is black, tar material.

(2) Approximately 10% of this sample is brown, fibrous material.

Microscopic: (1) The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 30% cellulose, 20% fiberglass). The remaining 50% of this layer is

non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 90% cellulose). The remaining 10% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #22, Gravel Stop.

Macroscopic: (1) 100% of this sample is black, tar material.

Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 20% fiberglass). The remaining 50% of this sample

is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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CHEMIST

Page 1 of 2





Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab R	eport No. <u>3422</u>	29
Date	October 16, 2	000

Customer:

U. S. Army Corps of Engineers P.O. Drawer 65490 Langley AFB, VA 23665-5490 Attn: Randy Born

Method of Analysis: EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(1)	Sam	ple #21A.	Roof N	Aembrane
1 - 1	, Suite	DIG	TIONT	TOTTION

Macroscopic: (1) Apr

(2)

(1)

(1)

(1)

(1) Approximately 90% of this sample is black, tar material.

Microscopic:

Approximately 10% of this sample is brown, fibrous, and particulate material. The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 10% cellulose, 15% fiberglass). The remaining 75% of this layer is

non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(2) Sample #21B, Roof Membrane.

Macroscopic:

(1) Approximately 90% of this sample is black, tar material.

(2) Approximately 10% of this sample is brown, fibrous, and particulate material.

Microscopic:

The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this layer is

non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #22A, Gravel Stop.

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED:

CHEMIST

Page 1 of 2





Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab F	Report	No.	34213
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Date October 11, 2000

Customer:

Army of Corps of Engineers P.O. Drawer 65490 Langley Air Force Base, VA 23665-5490 Attn: Randy Born

Method of Analysis:

EPA Interim Method for the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(4)	Sample #23.	Parapet	Wall	Flashing
-----	-------------	---------	------	----------

Macroscopic: (1)

(1) 100% of this sample is black, tar material.

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 60% fiberglass). The remaining 40% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(5) Sample #24, Roof Cement.

Macroscopic:

(1) 100% of this sample is black, tar material.

Microscopic:

(1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(6) Sample #25, Roof Coating, Small Hangar.

Macroscopic:

(1) 100% of this sample is gray, particulate material.

Microscopic:

(1)

(1)

100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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Method Detection Limit = <1% Asbestos.

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Page 2 of 2

ENVIRONMENTAL TESTING LABORATORY AND INDUSTRIAL HYGIENE SERVICES

MARINE CHEMIST CERTIFICATIONS, ASBESTOS, OIL, WATER, WASTEWATER, LEAD, SOIL, HAZARDOUS WASTE
SAMPLING AND ANALYSIS, NONDESTRUCTIVE TESTING, FEED WATER SUPPLY AND ANALYSIS, TRAINING CLASSES

Marine Chemist Service 31mr.



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Sample Description:

LAFB, Bldg. 756 Job #00-041-S

Lab Report No	o. <u>34229</u>	
Date Octob	er 16, 2000	

Customer:

U. S. Army Corps of Engineers P.O. Drawer 65490 Langley AFB, VA 23665-5490 Attn: Randy Born

Method of Analysis: **EPA Interim Method for** the Determination of Asbestos (40 CFR 763, Appendix A to Subpart F).

REPORT OF ANALYSIS

(4)	Sample #23A,	Parapet	Wall	Flashing.	
-----	--------------	---------	------	-----------	--

(1)

Macroscopic: (1)Approximately 95% of this sample is black, tar material.

Approximately 5% of this sample is brown, fibrous, and particulate material. **(2)**

Microscopic:

The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 10% cellulose, 10% fiberglass). The remaining 80% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected

(5) Sample #24A, Roof Cement.

> Macroscopic: 100% of this sample is black, cement material. **(1)**

Microscopic: (1)

Approximately 10% of this sample is chrysotile asbestos. The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(6) Sample #25A, Roof Coating-Small Hangar.

Macroscopic:

100% of this sample is gray, coating material. (1)

Microscopic: (1)

Approximately 10% of this sample is chrysotile asbestos. The remaining 90% of this sample

is non-fibrous material.

Total Asbestos Percentage = 10%.

(7) Sample #25B, Roof Coating-Small Hangar.

> Macroscopic: (1) 100% of this sample is gray, coating material.

Microscopic: Approximately 10% of this sample is chrysotile asbestos. The remaining 90% of this sample **(1)**

is non-fibrous material.

Total Asbestos Percentage = 10%.

NOTE: SAMPLES TAKEN BY LABORATORY ON 10/6/00. TEST REPORT RELATES ONLY TO THE ITEMS TESTED.

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Method Detection Limit = <1% Asbestos.

ENVIRONMENTAL TESTING LABORATORY AND INDUSTRIAL HYGIENE SERVICES Page 2 of 2 MARINE CHEMIST CERTIFICATIONS, ASBESTOS, OIL, WATER, WASTEWATER, LEAD, SOIL, HAZARDOUS WASTE SAMPLING AND ANALYSIS, NONDESTRUCTIVE TESTING, FEED WATER SUPPLY AND ANALYSIS, TRAINING CLASSES

SIGNED:





Customer:

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Report No	34954
Date April 12	2, 2001

Sample Description:

LAFB, Bldg 756.

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

Riggéra (de Anglerais

(1)	Sample #26, Pink and Green Carpet Adhesive/Green Floor Tile Adhesive	-
-----	--	---

Macroscopic:

- (1) Approximately 40% of this sample is black, foam material.
- (2) Approximately 10% of this sample is brown, adhesive material.
- (3) Approximately 40% of this sample is green, tile material.
- (4) Approximately 10% of this sample is black, adhesive material.

Microscopic:

- The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% fiberglass). The remaining 95% of this sample is non-fibrous material.
- (2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% polyester). The remaining 95% of this sample is non-fibrous material.
- (3) Approximately 10% of this layer is chrysotile asbestos.

 The remaining 90% of this layer is non-fibrous material.
- (4) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 4%.

(1)

(2) Sample #27, Floor Filler Under Green Floor /Adhesive

(1)

- Macroscopic:
- (1) 100% of this sample is beige, sealer material.
- Microscopic:
- (1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #28, Tan Floor Tile/Adhesive Under Ceramic Floor Tile.

Macroscopic:

- (1) Approximately 90% of this sample is tan, tile material.
- (2) Approximately 10% of this sample is black, adhesive material.

Microscopic:

- 100% of this sample is non-fibrous material.
- (2) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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CHEMIST

Page 1 of 4





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No. <u>34998</u>				
Date	April 19, 2001			

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

-	& Green carpet Adhesive/White Floor Tile/Adhesive, RM. 10, and Hallway.	
Macroscopic:	Approximately 10% of this sample is beige, adhesive material.	
	Approximately 30% of this sample is black, fibrous, and particulate material.	
	Approximately 50% of this sample is beige, tile material.	
	Approximately 10% of this sample is black, adhesive material.	
Microscopic:	The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% polyeste	er).
	The remaining 95% of this layer is non-fibrous material.	
	The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% polyes	ster).
	The remaining 90% of this layer is non-fibrous material.	
	100% of this layer is non-fibrous material.	
	Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer non-fibrous material.	er is

Total Asbestos Percentage = 1%.

(2) Sample #26B, Pink & Green Carpet Adhesive/Green Floor Tile/Adhesive.

> Macroscopic: Approximately 10% of this sample is beige, adhesive material. (1)

(2) Approximately 50% of this sample is black, fibrous, and particulate material.

(3) Approximately 30% of this sample is green, tile material.

(4) Approximately 10% of this sample is black, adhesive material.

Microscopic: 100% of this layer is non-fibrous material. **(1)**

> The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% polyester). (2)

The remaining 90% of this layer is non-fibrous material.

(3) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

(4) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = 3%.

SIGNED: LL & M



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Ro	eport No. <u>34998</u>	
Date	April 19, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(3)	Sample #27A,	Floor Filler Un	der Ceramic Floor Tile.
-----	--------------	-----------------	-------------------------

Macroscopic: (1)

1) 100% of this sample is gray, particulate material with mastic.

Microscopic:

Approximately 10% of this sample is chrysotile asbestos. The remaining 90% of this

sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(1)

(4) Sample #27B, Floor Filler Under Ceramic Floor Tile.

Macroscopic:

(1) Approximately 90% of this sample is beige, tile material.

(2) Approximately 10% of this sample is beige, adhesive material.

Microscopic:

(1) 100% of this layer is non-fibrous material.

(2) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(5) Sample #28A, Tan Floor Tile/Adhesive Under Green & Pink Carpet.

Macroscopic:

(1) Approximately 90% of this sample is brown, tile material.

(2) Approximately 10% of this sample is black, adhsive material.

Microscopic:

(1) 100% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is

non-fibrous material.

Total Asbestos Percentage = 1%.

(6) Sample #28B, Tan Floor Tile/Adhesive Under Green & Pink Carpet.

Macroscopic:

(1) Approximately 90% of this sample is brown, tile material.

(2) Approximately 10% of this sample is black, adhesive material.

Microscopic:

(1) 100% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is

non-fibrous material.

Total Asbestos Percentage = 1%.

SIGNED: __/

Marine
Chemist
Service
Inc.



Customer:

(4)

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Repo	ort No	34954
DateA	pril 12, 2001	·

Sample Description:

LAFB, Bldg 756.

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

HARATO (DELENAS) (S

`''			
	Macroscopic:	(1)	Approximately 30% of this sample is pink, tile material.
		(2)	Approximately 10% of this sample is beige, adhesive material.
		(3)	Approximately 50% of this sample is beige, tile material.
		(4)	Approximately 10% of this sample is black, adhesive material.
	Microscopic:	(1)	100% of this sample is non-fibrous material.
	•	(2)	100% of this sample is non-fibrous material.
		(3)	100% of this sample is non-fibrous material.
		1.1	

(4) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% cellulose). The remaining 95% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(5) Sample #30, Bottom Layer of Floor Tile/Adhesive of Sample #29.

Sample #29. Pink Floor Tile/Adhesive/ Floor Tile/Adhesive.

- Macroscopic: (1) Approximately 90% of this sample is beige, tile material.
 - (2) Approximately 10% of this sample is black, adhesive material.

Microscopic: (1) Approximately 10% of this sample is chrysotile asbestos.

The remaining 90% of this sample is non-fibrous material.

(2) Approximately 10% of this sample is chrysotile asbestos.

The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

- (6) Sample #31, Gray Floor Filler/ Floor Tile /Adhesive Under Ceramic.
 - Macroscopic: (1) Approximately 90% of this sample is gray, tile material.
 - (2) Approximately 10% of this sample is beige, adhesive material.

Microscopic: (1) 100% of this sample is non-fibrous material.

(2) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

GNED: 4

Page 2 of 4





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No.	34998	
-		

Date April 19, 2001

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

7)	Macroscopic:	(1)	or Tile/ Adhesive/Floor Tile/Adhesive. Approximately 40% of this sample is pink, tile material.
	macroscopic.	(2)	Approximately 10% of this sample is brown, adhesive material.
		(3)	Approximately 40% of this sample is beige, tile material.
		(4)	Approximately 10% of this sample is beige, adhesive material.
	Microscopic:	(1)	100% of this layer is non-fibrous material.
	•	(2)	100% of this layer is non-fibrous material.
		(3)	100% of this layer is non-fibrous material.
		(4)	100% of this layer is non-fibrous material.
	Total Asbestos	Percenta	ge = No Asbestos Detected.
8)	Sample #29B I	Pink Floo	or Tile/Adhesive/Floor Tile/Adhesive.
,	Macroscopic:	(1)	Approximately 40% of this sample is pink, tile material.
		(0)	- production of the production

- - Approximately 10% of this sample is brown, adhesive material. **(2)**
 - (3)Approximately 40% of this sample is beige, tile material.
 - (4) Approximately 10% of this sample is beige, adhesive material.
 - Microscopic: 100% of this layer is non-fibrous material. (1)
 - (2) 100% of this layer is non-fibrous material.
 - (3) 100% of this layer is non-fibrous material.
 - (4) 100% of this layer is non-fibrous material.
 - Total Asbestos Percentage = No Asbestos Detected.
- (9) Sample #30A, Bottom Layer of Floor Tile, Adhesive of Sample #29A.
 - Macroscopic: **(1)**
 - Approximately 90% of this sample is beige, tile material.
 - **(2)** Approximately 10% of this sample is black, adhesive material.
 - Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer Microscopic: (1)
 - is non-fibrous material.
 - Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer (2) is non-fibrous material.

Total Asbestos Percentage = 10%.

Marine
Chemist
Service
Inc.



Customer:

(7)

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab R	eport No	34954
Date_	April 12, 2001	

Sample Description:

LAFB, Bldg 756.

Method of Analysis:

EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

REPORTORANAEVOR

(7)	Sample #32, Br	own Flo	or Tile /Adhesive Material.
	Macroscopic:	(1)	Approximately 90% of this sample is brown, tile material.
	_	(2)	Approximately 10% of this sample is black, adhesive material
	Microscopic:	(1)	Approximately 10% of this sample is chrysotile asbestos.

The remaining 90% of this layer is non-fibrous material. Approximately 10% of this layer is chrysotile asbestos.

The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 10%.

(2)

(1)

- (8) Sample #33, Red Floor Tile/Adhesive/ Green Floor Tile /Adhesive.
 - Macroscopic: Approximately 70% of this sample is brown, tile material. (1)
 - (2) Approximately 10% of this sample is black, adhesive material.
 - **(3)** Approximately 10% of this sample is green, tile material.
 - (4) Approximately 10% of this sample is black, adhesive material.

Microscopic:

- Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.
- **(2)** Approximately 10% of this layer is chrysotile asbestos.
 - The remaining 90% of this layer is non-fibrous material.
- (3) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.
- (4) Approximately 10% of this layer is chrysotile asbestos
 - The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 10%.

Page 3 of 4





Customer:

(10)

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Ro	eport No. <u>34998</u>	
Date _	April 19, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

R																				

` '			1
	Macroscopic:	(1)	Approximately 90% of this sample is beige, tile material.
		(2)	Approximately 10% of this sample is black, adhesive material.
	Microscopic:	(1)	Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer

 Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material

Total Asbestos Percentage = 10%.

(11) Sample #31A, Gray Floor Filler/Floor Tile/Adhesive Under Ceramic.

Macroscopic: (1) Approximately 10% of this sample is gray, particulate material.

(2) Approximately 80% of this sample is beige, tile material.

(3) Approximately 10% of this sample is beige, adhesive material.

Microscopic: (1) 100% of this layer is non-fibrous material.

Sample #30B. Bottom Layer of Floor Tile/Adhesive of Sample #29B.

(2) 100% of this layer is non-fibrous material.

(3) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(12) Sample #31B, Gray Floor Filler/Floor Tile/Adhesive Under Ceramic.

Macroscopic: (1) Approximately 10% of this sample is gray, particulate material.

(2) Approximately 80% of this sample is beige, tile material.

(3) Approximately 10% of this sample is beige, adhesive material.

Microscopic: (1) 100% of this layer is non-fibrous material.

(2) 100% of this layer is non-fibrous material.

(3) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED



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Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No. 34998

Date April 19, 2001

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(13) Sample #32A, Brown Floor Tile/A	Adhesive.
--------------------------------------	-----------

Macroscopic:

Approximately 90% of this sample is brown, tile material. (1)

Approximately 10% of this sample is black, adhesive material. (2)

Microscopic:

Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (1)non-fibrous material.

Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (2) non-fibrous material.

Total Asbestos Percentage = 10%.

(14)Sample #32B, Brown Floor Tile/Adhesive.

Macroscopic: (1)

Approximately 90% of this sample is brown, tile material.

Approximately 10% of this sample is black, adhesive material. (2)

Microscopic: (1)

Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 10%.

(15)Sample #33A, Red Floor Tile/Adhesive/Green Floor Tile/Adhesive.

> Macroscopic: Approximately 50% of this sample is red, tile material. (1)

> > Approximately 10% of this sample is black, adhesive material. **(2)**

Approximately 30% of this sample is green, tile material. (3)

Approximately 10% of this sample is black, adhesive material. (4)

Microscopic: Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (1)

non-fibrous material. Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is **(2)**

non-fibrous material. Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (3)

non-fibrous material.

Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is **(4)** non-fibrous material.

SIGNED:

Total Asbestos Percentage = 10%.



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Report No	34954
Date April 12, 2001	
Sample Description:	

Method of Analysis:

LAFB, Bldg 756.

EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

ROBERTA DE ANTIGE

(9) Sample #34, Pink Floor Material.

Macroscopic:

100% of this sample is pink, particulate material. (1)

Microscopic:

(1)

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 5% cellulose). The remaining 95% is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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- -PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED:

Page 4 of 4





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab R	eport No. <u>34998</u>	
Date	April 19, 2001	_

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

í	16	Sample	#33B Red	Floor Tile/	Adhesive/Green	Floor Tile/Adhesive.
١	TO.	, Sample	moon, non	I IOOI I IIQ	LICHICOTAC OTCOM	I I I I I I I I I I I I I I I I I I I

Macroscopic: Approximately 50% of this sample is red, tile material. (1)

- Approximately 10% of this sample is black, adhesive material. (2)
- Approximately 30% of this sample is green, tile material. (3)
- Approximately 10% of this sample is black, adhesive material. (4)
- Microscopic:
 - Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.
 - Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (2) non-fibrous material.
 - (3) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.
 - Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (4) non-fibrous material.

Total Asbestos Percentage = 10%.

(17)Sample #34A, Pink Floor Material.

Macroscopic: Approximately 90% of this sample is pink, particulate material. (1)

> Approximately 10% of this sample is beige, adhesive material. **(2)**

100% of this layer is non-fibrous material. Microscopic: (1)

100% of this layer is non-fibrous material. (2)

Total Asbestos Percentage = No Asbestos Detected.





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab R	eport No. <u>34998</u>	
Date_	April 19, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(18) Sample #34B, Pink Floor Material.

Macroscopic: (1) Approx

Approximately 90% of this sample is pink, particulate material.

(2) Approximately 10% of this sample is beige, adhesive material.

Microscopic:

(1) 100% of this layer is non-fibrous material.

(2) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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-This report must not be used by the client to claim product endorsement by NVLAP or the U.S. Government.

-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1% Asbestos.

SIGNED





Customer:

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Report No 34965							
•							
Date April 11: 2001							

Sample Description:

LAFB Bldg,756 Job # 01-041S

Method of Analysis:
EPA 600/R-93/116 Method for the
Determination of Bulk Asbestos

73		50110	40.00	3,000	100	200	25.00	33.50	2000	43.0	1,000	100		200			All Car
	3	21.2	3 7	58	3 32	2.2	-2.73 8	130	B 54	100	939	. જ ક	8 93	L	300	10.0	1 4
и.	- 68	- 34	.00	1.0	5 ~	4.00	4200	600	2 .	100	£ 339	6	1. 1	3 53.53	2.5	ALL S	500
в	3 30	24.4	400	. W. J	€ %,	200	2.5	. 4	7 0%	F-49 6	3. 5	38. F	500. 9	S 20	33	30.7	5 32

Macroscopic:	(1)	Approximately 90% of this sample is gray, particulate material.
**	(2)	Approximately 10% of this sample is brown, adhesive material.
Microscopic:	(1)	100% of this sample is non-fibrous material.
•	(2)	The fibrous portion of this layer consists of a non-asbestiform material
		(i.e. 5% cellulose). The remaining 95% of this layer is non-fibrous material.
Total Asbesto	s Percenta	ge = No Asbestos Detected.
		riller Material Men's Bathroom.
	Red Floor	
Sample #36, I	Red Floor	Filler Material Men's Bathroom

- (3) Sample #37, Tan Floor Tile Adhesive, Flooring Material, Adhesive.
 - Macroscopic: (1) Approximately 90% of this sample is beige, tile material.
 - (2) Approximately 10% of this sample is black, adhesive material.
 - Microscopic: (1) 100% of this sample is non-fibrous material.
 - (2) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (4) Sample #38, Gray Stair Treads Adhesive Material:
 - Macroscopie: (1) Approximately 90% of this sample is gray, particulate material.
 - (2) Approximately 10% of this sample is beige, adhesive material.
 - Microscopic: (1) 100% of this sample is non-fibrous material.
 - (2) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED: 91 2

Page 1 of 3





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Ro	eport No. <u>34997 </u>	
Date _	April 13, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

																								•			

Macros	scopic:	(1)	Approximately 80% of this sample is brown, particulate material.
		(2)	Approximately 10% of this sample is gray, particulate material.
		(3)	Approximately 10% of this sample is beige, adhesive material.
Micros	copic:	(1)	100% of this layer is non-fibrous material.
	•	(2)	100% of this layer is non-fibrous material.
		(3)	The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% cellulose).
		` '	The remaining 95% of this layer is non-fibrous material.
Total A	Asbestos F	Percenta	ge = No Asbestos Detected.

- Sample #35B, Ceramic Floor Tile Adhesive in Women's Bathroom. **(2)**
 - Approximately 80% of this sample is brown, particulate material. Macroscopic: (1)

 - Approximately 10% of this sample is gray, particulate material. (2)
 - Approximately 10% of this sample is beige, adhesive material. (3)
 - 100% of this layer is non-fibrous material. Microscopic: (1)
 - 100% of this layer is non-fibrous material. (2)
 - The fibrous portion of this layer consists of a non-asbestiform material (i.e. 5% cellulose). (3)The remaining 95% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (3) Sample #36A, Red Floor Filler Material Men's Bathroom.
 - Macroscopic:
- 100% of this sample is red, particulate material. (1)
 - Microscopic:
- 100% of this sample is non-fibrous material. (1)

Total Asbestos Percentage = No Asbestos Detected.

- Sample #36B, Red Floor Filler Material Women's Bathroom. (4)
 - Macroscopic:
- 100% of this sample is red, particulate material. **(1)**
- Microscopic:
- 100% of this sample is non-fibrous material. (1)

Total Asbestos Percentage = No Asbestos Detected.





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab K	eport No. <u>34997</u>	
Date	April 13, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

Macroscopic:	(1)	Approximately 50% of this sample is tan, tile material.
-	(2)	Approximately 10% of this sample is black, adhesive material.
	(3)	Approximately 30% of this sample is beige, particulate material.
	(4)	Approximately 10% of this sample is black, adhesive material.
Microscopic:	(1)	100% of this layer is non-fibrous material.
•	(2)	100% of this layer is non-fibrous material.
	(3)	Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.
	(4)	Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

- Sample #37B, Tan Floor Tile/Adhesive/Flooring Material/Adhesive. (6)
 - Macroscopic: Approximately 50% of this sample is tan, tile material. (1)
 - Approximately 10% of this sample is black, adhesive material. (2)
 - Approximately 30% of this sample is beige, particulate material. (3)

 - (4) Approximately 10% of this sample is black, adhesive material.
 - Microscopic:
- 100% of this layer is non-fibrous material. (1)
- 100% of this layer is non-fibrous material. (2)
- Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (3) non-fibrous material.
- Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is (4) non-fibrous material.

Total Asbestos Percentage = 2%.



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Customer:

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Ro	eport No <u>34965</u>	
Date	April 11, 2001	

Sample Description:

LAFB Bldg,756 Job # 01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

CARONICO MARKATANCO

(5) Sample #39, 2 x 2 White, Ceiling

Macroscopic:

(1)

100% of this sample is gray, fibrous, particulate material with paint. The fibrous portion of this sample consists of a non-asbestiform material

Microscopic:

(1)

(i.e. 40%cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #40, 2 x 2 White Ceiling Tile. (6)

(1)

Macroscopic:

100% of this sample is gray, fibrous, particulate material with paint. (1)

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 40% cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #41, 2 x 4 White Ceiling Tile. (7)

Macroscopic:

100% of this sample is beige, fibrous, compressed, material with paint. (1)

Microscopic:

Approximately 10% of this sample is chrysotile asbestos. (1)

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 30% cellulose, 30% mineral wool)

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(1)

Sample # 42, 2 x 2 White Ceiling Tile. (8)

Macroscopic:

100% of this sample is gray, fibrous, compressed, particulate material with paint.

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material (1)

(i.e. 40% cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material. Total Asbestos Percentage = No Asbestos Detected.

Page 2 of 3





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No.	34997
_	
Date April 13	, 2001

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

Macroscopic: (1) Approximately

(1)

Approximately 90% of this sample is gray, particulate material.

(2) Approximately 10% of this sample is beige, adhesive material.

Microscopic:

100% of this layer is non-fibrous material.

(2) The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 5% cellulose). The remaining 95% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(8) Sample #39A, 2 x 2 White Ceiling Tile Patch.

(1)

Macroscopic:

(1) 100% of this sample is gray, compressed, fibrous, and particulate material with paint.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(9) Sample #40A, 2 x 2 White Ceiling Tile Patch.

(1)

Macroscopic:

100% of this sample is beige, compressed, fibrous, and particulate material with paint.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(10) Sample #41A, 2 x 4 White Ceiling Tile.

Macroscopic:

100% of this sample is beige, compressed, fibrous, and particulate material with paint.

Microscopic:

(1) Approximately 10% of this sample is chrysotile asbestos. The remaining fibrous portion of

this sample consists of non-asbestiform materials (i.e. 30% cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

GNED CHEMIST



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Drawer 65490 Langley, AFB, VA 23665

Lab Ro	eport No	34965	
Date	April 1	1, 2001	

Sample Description:

LAFB Bldg,756 Job # 01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

HEROTO CONTRACTORS

(9)Sample #43, 2 x 4 White Ceiling Tile.

Macroscopic:

100% of this sample is gray, fibrous, compressed, particulate material with paint. **(1) (1)**

Microscopic:

The fibrous portion of this consists of a non-asbestiform material

(i.e. 40% cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #44, 2 x 2 White Ceiling Tile 2nd Floor. (10)

(1)

Macroscopic:

100% of this sample is gray, fibrous, compressed, particulate material with paint. (1)

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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- -PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

Page 3 of 3





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No	34997	
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Date April 13, 2001

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(11) Sample #42A, 2 x 2 White Ceiling Tile.

Macroscopic: (1) 100% of t

100% of this sample is beige, compressed, fibrous, and particulate material with paint.

Microscopic:

(1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(11) Sample #42B, 2 x 2 Ceiling Tile Patch White Tile.

(1)

Macroscopic:

(1) 100% of this sample is gray, compressed, fibrous, and particulate material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(12) Sample #43A, 2 x 4 White Ceiling Tile.

Macroscopic:

(1) 100% of this sample is gray, compressed, fibrous, and particulate material.

Microscopic:

(1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(13) Sample #44A, 2x2 White Ceiling Tile, 2nd Floor.

(1)

Macroscopic:

(1) 100% of this sample is gray, compressed, fibrous, and particulate material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

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-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1% Asbestos.

GNED CHERIST





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab R	eport No. <u> 3</u>	35011	
Date	April 26,	2001	

Sample Description:

LAFB, Bldg.756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

PER WARRENCE CONTROL

(1)	Sample #45,	Gray Carpet	Adhesive,	Floor Ti	ile, Adhesive.	

Approximately 40% of this sample is brown, adhesive material. Macroscopic: (1)

> Approximately 50% of this sample is beige, tile material. (2)

Approximately 10% of this sample is black, adhesive material. (3)

The fibrous portion of this layer consists of a non-asbestiform material (1) Microscopic: (i.e. 5% cellulose). The remaining 95% of this layer is non-fibrous material.

> 100% of this layer is non-fibrous material. **(2)**

The fibrous portion of this layer consists of a non-asbestiform material (3) (i.e. 5% cellulose). The remaining 95% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #46, Tan Base Cove, Adhesive. (2)

> Macroscopic: Approximately 90% of this sample is tan, particulate material. (1)

> > (2) Approximately 10% of this sample is beige, adhesive material.

100% of this layer is non-fibrous material. Microscopic: (1)

> The fibrous portion of this layer consists of a non-asbestiform material (2)

> > (i.e. 50% cellulose). The remaining 50% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #47, 9 x 9 Floor Tile, Adhesive. (3)

> Macroscopic: Approximately 90% of this sample is gray, tile material. **(1)**

Approximately 10% of this sample is black, adhesive material. **(2)**

Approximately 10% of this layer is chrysotile asbestos. Microscopic: (1)

The remaining 90% of this layer is non-fibrous material.

Approximately 10% of this layer is chrysotile asbestos. **(2)**

The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 10%.



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665

Lab Re	port No	35058	
Date	May 9,	2001	

Sample Description: LAFB, Bldg 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(1) ⁻	Sample #	45A, G1	ay Carpet	t Adhe:	sive/Flo	oor'	Tile/	Adhesive.		

Macroscopic:

- (1) Approximately 10% of this sample is beige, adhesive material.
- (2) Approximately 80% of this sample is brown, tile material.
- (3) Approximately 10% of this sample is black, mastic material.

Microscopic:

- (1) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.
- (2) 100% of this sample is non-fibrous material.
- (3) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (2) Sample #45B, Gray Carpet Adhesive/Floor Tile/Adhesive.
 - Macroscopic:
- (1) Approximately 10% of this sample is brown, adhesive material.
- (2) Approximately 80% of this sample is gray, tile material.
- (3) Approximately 10% of this sample is black, mastic material.
- Macroscopic:
- (1) The fibrous portion of this layer consists of a non-asbestiform material
 - (i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.
- (2) 100% of this sample is non-fibrous material.
- (3) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (3) Sample #46A, Tan Base Cove/Adhesive.
 - Macroscopic:
- (1) Approximately 70% of this sample is brown, particulate, and vinyl material.
- (2) Approximately 30% of this sample is white, particulate material.
- Microscopic:
- (1) 100% of this sample is non-fibrous material.
- (2) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage =

SIGNED

Page 1 of 2





11850 Tug Boat Lane Newport News, Virginia 23606

(757) 873-0933 - Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Report No.	35011
Date	April 26, 2001

Sample Description:

LAFB, Bldg.756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

74 W	72		200	S 200	2.00	S. 75		25.5	25 5 27	20.0	100 Car.	1. A 35	9 1 30
S	28. 5 3.		237 3	9 892	K3636 V	22.5	3 (1975)	2.0	100	100	200	1/4	2 3 "
× .	Se . 5	3 es 20	330	3,332	VALUE 1	63 X	10000	43.48	y 32.5		32,770	2000	30%

(4	Sample #48	3, 2 x	2 White	Ceiling Tile.
----	------------	--------	---------	---------------

Macroscopic:

(1) 100% of this sample is beige, fibrous, compressed, and particulate material.

(1) The fibrous portion of this sample consists of non-asbestiform materials Microscopic:

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

Sample #49, Red & Blue Carpet Adhesive, Floor Tile, Adhesive, Floor Tile, Adhesive. (5)

Macroscopic: Approximately 10% of this sample is brown, adhesive material. **(1)**

> Approximately 40% of this sample is brown, tile material. **(2)**

(3)Approximately 40% of this sample is green, tile material.

Approximately 10% of this sample is black, adhesive material. (4) The fibrous portion of this layer consists of a non-asbestiform material Microscopic: (1)

(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is non-fibrous material.

100% of this layer is non-fibrous material. (3)

(4) Approximately 10% of this layer is chrysotile asbestos.

The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 5%.

(6) Sample #50, Floor Tile, Adhesive Floor Tile, Adhesive, Bottom of #49.

> Macroscopic: Approximately 40% of this sample is pink, tile material. (1)

> > Approximately 10% of this sample is brown, adhesive material. (2)

Approximately 40% of this sample is beige, tile material. (3)

Approximately 10% of this sample is black, adhesive material. (4)

100% of this layer is non-fibrous material. Microscopic: (1)

> 100% of this layer is non-fibrous material. (2)

(3) Approximately 10% of this layer is chrysotile asbestos.

The remaining 90% of this layer is non-fibrous material.

(4) 100% of this layer is non-fibrous material.

Total Asbestos Percentage = 4%.

SIGNED:





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab R	Report No. <u>35011</u>	
Date _	April 26, 2001	
Samn	le Description:	

LAFB, Bldg.756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORTED PROGRAMS IS

(7) Sample #51, 2 x 4 White Ceiling Tile, Room 133.

(1)

Macroscopic: (1) 10

100% of this sample is beige, fibrous, compressed, and particulate material with paint.

Microscopic:

The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

NOTE: SAMPLES TAKEN BY LABORATORY 4/16/01. TEST REPORT RELATES ONLY TO THE ITEMS TESTED.

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-This report must not be used by the client to claim product endorsement by NVLAP or the U.S. Government.

-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 - Fax (757) 873-1074

Customer: Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665

Lab R	eport No	35057	· · · · · · ·
Date_	May 9, 2001		

Sample Description:

LAFB, Bldg. 756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

Rakarakon angasigis

(1) Sample #52A, 2 x 4 Ceiling Tile Patch.

Macroscopic: (1) 100% of

(1)

100% of this sample is beige, fibrous, and particulate material with paint.

Microscopic: (1) The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 30% cellulose, 40% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(2) Sample #53A, 2 x 4 Ceiling Patch.

Macroscopic:

(1) 100% of this sample is beige, fibrous, particulate material.

Microscopic:

The fibrous portion of this layer consists of non-asbestiform materials

(i.e. 30% cellulose, 40% mineral wool).

The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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- -This report must not be used by the client to claim product endorsement by NVLAP or the U.S. Government.
- -PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED:

Page 1 of 1



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 – Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665

Lab R	eport No <u>35058</u>	
Doto	May 0, 2001	
Date	May 9, 2001	

Sample Description: LAFB, Bldg 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(4) Sample #48A, 2 x 2 White Ceiling Tile.

Macroscopic:

(1) 100% of this sample is beige, fibrous, and particulate material with paint.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 20% fiberglass). The remaining 50% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(5) Sample #51A, 2 x 4 White Ceiling Tile Room 133A.

(1)

(1)

Macroscopic:

(1) 100% of this sample is beige, fibrous, particulate material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 50% mineral wool). The remaining 20% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED

Page 2 of 2





Customer:

U. S. Army Corps of Engineers Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab R	eport No. <u>35017</u>	
Date	April 25, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

\mathbf{a}	Sa	mple #52	2×4	Ceiling	Tile.
--------------	----	----------	--------------	---------	-------

Macroscopic: (1) 100

(1) (1)

100% of this sample is gray, compressed, fibrous, and particulate material with paint.

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(2) Sample #53, 2 x 4 Ceiling Tile.

Macroscopic:

(1) 100% of this sample is gray, compressed, fibrous, and particulate material with paint.

Microscopic:

Microscopic:

(1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #54, Tan Floor Tile & Adhesive.

Macroscopic:

(1) Approximately 90% of this sample is tan, tile material.

(2) Approximately 10% of this sample is black, adhesive material.

Microscopic:

100% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos. The remaining 90% of this layer is

non-fibrous material.

Total Asbestos Percentage = 1%.

(1)

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-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1% Asbestos.

SIGNED

CHEMIST





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Ro	eport No. <u>35036</u>	
Date _	April 26, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041-S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(1)	Sample #55,	Plaster	Ceiling	Material.
------------	-------------	---------	---------	-----------

Macroscopic: (1) Approxim

(1) Approximately 10% of this sample is white, particulate material.
 (2) Approximately 90% of this sample is beige, particulate material.

Microscopic:

(1) 100% of this sample is non-fibrous material.

(2) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(2) Sample #56, Sealer on Fiberglass Duct.

(1)

Macroscopic:

100% of this sample is beige, fibrous, compressed, and particulate material with foil backing

with coating.

Microscopic:

(1) Approximately 10% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 30% cellulose, 15% fiberglass). The remaining 45% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(3) Sample #57, 8" Pipe Insulation, Lagging.

Macroscopic:

(1) 100% of this sample is beige, fibrous, and particulate material.

Microscopic:

(1) Approximately 25% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 55% cellulose). The remaining 20% of this sample is non-fibrous material.

Total Asbestos Percentage = 25%.

(4) Sample #58, Brown Sealer on Metal Duct.

Macroscopic:

(1) 100% of this sample is brown, sealer material.

Microscopic:

(1) Approximately 10% of this sample is chrysotile asbestos.

The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

IGNED:____





Customer:

U. S. Army Corps of Engineers P.O. Box Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab R	eport No. <u>35056</u>	· · · · · · · · · · · · · · · · · · ·
Date	May 11, 2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

		REPORT OF ANALYSIS
		Ceiling Material.
Macroscopic:	(1)	100% of this sample is beige, particulate material.
Microscopic:	(1)	The fibrous portion of this sample consists of a non-asbestiform material
	- .	(i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.
Total Asbestos	Percenta	age = No Asbestos Detected.
Sample #55B,	Plaster C	Ceiling Material.
Macroscopic:	(1)	100% of this sample is white, particulate material.
Microscopic:	(1)	The fibrous portion of this sample consists of a non-asbestiform material
		(i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.
Total Asbestos	Percenta	age = No Asbestos Detected.
Sample #59A,	Drywall/	Joint Compound Material.
Macroscopic:	(1)	Approximately 10% of this sample is white, particulate material.
	(2)	Approximately 10% of this sample is brown, particulate material.
	(3)	Approximately 80% of this sample is gray, fibrous, and particulate material.
Microscopic:	(1)	The fibrous portion of this layer consists of a non-asbestiform material
		(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material
	(2)	The fibrous portion of this layer consists of a non-asbestiform material
		(i.e. 90% cellulose). The remaining 10% of this layer is non-fibrous material
	(3)	The fibrous portion of this layer consists of a non-asbestiform material
		(i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material
Total Asbestos	Percenta	age = No Asbestos Detected.
Sample #59B,	Drywall/	Joint Compound Material.
Macroscopic:	(1)	Approximately 10% of this sample is brown, fibrous material.
	(2)	Approximately 90% of this sample is light gray, fibrous, and particulate material
Microscopic:	(1)	The fibrous portion of this layer consists of a non-asbestiform material
		(i.e. 90% cellulose). The remaining 10% of this layer is non-fibrous material
	(2)	The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material
Total Asbestos	Percenta	age = No Asbestos Detected. SIGNED:
		CHEMIST





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Report No. 35036			
Date _	April 26, 2001		

LAFB, Bldg. 756 Job #01-041-S

Sample Description:

Method of Analysis: EPA 600/R-93/116 Method for the **Determination of Bulk Asbestos**

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(5)	Sample #59, D	rywall Joint	Compound Material.	
	Macroscopic:	(1)	Approximately 10% of this sample is white fibrous and particulat	e

- Approximately 10% of this sample is brown, fibrous, and compressed material. (2)
- Approximately 80% of this sample is gray, fibrous, and particulate material. (3)
- The fibrous portion of this layer consists of a non-asbestiform material Microscopic: (i.e. 15% cellulose). The remaining 85% of this layer is non-fibrous material.
 - The fibrous portion of this layer consists of a non-asbestiform material (i.e. 100% cellulose) (2)
 - (3) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 10% cellulose). The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- Sample #60, Brown Adhesive on Plaster Wall Behind Drywall, 2nd Floor. (6)
 - 100% of this sample is brown, adhesive material. Macroscopic: (1)
 - (1) Microscopic: 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (7) Sample #61, 2 x 2 White Ceiling Tile Patch.
 - Macroscopic:
 - 100% of this sample is beige, fibrous, compressed, and particulate material with paint. (1)
 - Microscopic: The fibrous portion of this layer consists of non-asbestiform materials. (1)
 - (i.e. 60% cellulose, 20% mineral wool). The remaining 20% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.





Customer:

U. S. Army Corps of Engineers P.O. Box Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No.	35056
Date May 11,	2001

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(5)	Sample #60A, I	Brown Ad	thesive on Plaster Wall Behind Drywall, 2 th Floor.
	Macroscopic:	(1)	100% of this sample is beige, adhesive material.
	Microscopic:	(1)	The fibrous portion of this sample consists of a non-asbestiform material
	_		(i.e. 5% cellulose). The remaining 95% of this sample is non-fibrous material.
	Total Asbestos	Percentag	ge = No Asbestos Detected.

- (6) Sample #61A, 2 x 2 White Ceiling Tile Patch.
 - Macroscopic: (1) 100% of this sample is beige, fibrous, and particulate material.
 - Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 30% mineral wool). The remaining 40% of this sample is non-fibrous

material.

Total Asbestos Percentage = No Asbestos Detected.

- (7) Sample #63A, 2' x 5' Plaster Hanger Ceiling.
 - Macroscopic: (1) 100% of this sample is white, particulate material.
 - Microscopic: (1) The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 10% cellulose). The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (8) Sample #63B, 2' x 5' Plaster Hanger Ceiling.
 - Macroscopic: (1) 100% of this sample is white, particulate material.
 - Microscopic: (1) The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 5% cellulose). The remaining 95% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

- (9) Sample #65A, 2 x 4 White Wall Tile.
 - Macroscopic: (1) 100% of this sample is beige, fibrous, and particulate material with paint.
 - Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 30% mineral wool). The remaining 40% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED: __

CHEMIST





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Report No. 35036	
Date April 26, 2001	
Sample Description:	

LAFB, Bldg. 756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(8)	Sample #62, 2	2" Muddec	l Elbow Material.			
		/11		000/	0.11	

Macroscopic: (1) Approximately 20% of this sample is beige, woven material.

(2) Approximately 80% of this sample is gray, fibrous, and particulate material.

Microscopic: (1) The fibrous portion of this layer consists of a non-asbestiform material

(i.e. 80% cotton). The remaining 20% of this layer is non-fibrous material.

(2) Approximately 35% of this layer is chrysotile asbestos. The remaining 65% of this layer is non-fibrous material.

Total Asbestos Percentage = 28%.

(9) Sample #63, 2' x 5' Plaster Hanger Ceiling.

Macroscopic: (1) 100% of this sample is gray, particulate material.

Microscopic: (1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(10) Sample #64, Sealer on A/C Unit.

Macroscopic: (1) 100% of this sample is fibrous, compressed material with sealer.

Microscopic: (1) Approximately 10% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 60% cellulose). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = 10%.

(11) Sample #65, 2 x 4 White Wall Tile.

Macroscopic: (1) 100% of this sample is beige, fibrous, compressed, and particulate material with paint.

Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 40% cellulose, 30% mineral wool). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Report No.	35036
•	

Date <u>April 26, 2001</u>

Sample Description:

LAFB, Bldg. 756 Job #01-041-S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(12)	Sample #66.	12 x 12	Green Floor Ti	le, Adhesive.
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Macroscopic: (1) Approximately 90% of this sample is green, tile material.

(2) Approximately 10% of this sample is black, adhesive material.

Microscopic: (1) 100% of this layer is non-fibrous material.

(2) Approximately 10% of this layer is chrysotile asbestos.

The remaining 90% of this layer is non-fibrous material.

Total Asbestos Percentage = 1%.

(13) Sample #67, 2 x 2 White Ceiling Tile.

Macroscopic: (1) 100% of this sample is beige, fibrous, compressed, and particulate material with paint.

Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials.

(i.e. 50% cellulose, 20% mineral wool). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(14) Sample #68, Floor Filler Material.

Macroscopic: (1) 100% of this sample is gray, particulate material.

Microscopic: (1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(15) Sample #69, Roof Shingle on Shack Inside of Hanger.

Macroscopic: (1) 100% of this sample is black, shingle material.

Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials.

(i.e. 10% cellulose, 15% fiberglass). The remaining 75% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(16) Sample #70, 2" Steam Pipe Insulation.

Macroscopic: (1) 100% of this sample is brown, fibrous, compressed, and particulate material with paint.

Microscopic: (1) Approximately 30% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 30% cellulose). The remaining 40% of this sample is non-fibrous material.

Total Asbestos Percentage = 30%.

SIGNED:

4 of 5

CHEMIST



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 – Fax (757) 873-1074

Customer:

U. S. Army Corps of Engineers P.O. Box Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab Report No. 35056			
Date	May 11.	2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(10) Sample	#67A.	2 x 2	White	Ceiling Tile.	
-----	----------	-------	-------	-------	---------------	--

Macroscopic: (1) 100% of this

1) 100% of this sample is beige, fibrous, and particulate material with paint.

Microscopic: (1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 30% cellulose, 30% mineral wool). The remaining 40% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(11) Sample #68A, Floor Filler Material.

Macroscopic: (1) 100% of the

(1) 100% of this sample is gray, particulate material.

Microscopic: (1) The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 5% cellulose). The remaining 95% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(12) Sample #68B, Floor Filler Material.

Macroscopic:

(1) 100% of this sample is gray, particulate material.

Microscopic:

(1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(13) Sample #69A, Roof Shingle on Shack Inside of Hanger.

(1)

Macroscopic:

(1) 100% of this sample is brown, fibrous, particulate, and tar material.

Microscopic:

The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 20% cellulose, 40% fiberglass). The remaining 40% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED

HEMIST



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 – Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665 Attn: Randy Borne

Lab Report No. 35036	
DateApril 26, 2001	
Sample Description:	

LAFB, Bldg. 756 Job #01-041-S

Method of Analysis: EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(17) Sample #71, 1"x 1" Ceiling Tile, Adhesive.

Macroscopic: (1) 100% of

Macroscopic: (1)
Microscopic: (1)

100% of this sample is gray, fibrous, and particulate material.

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 70% mineral wool). The remaining 30% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED:

CHEMIST



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 – Fax (757) 873-1074

Customer:

U. S. Army Corps of Engineers P.O. Box Drawer 65490 Langley Air Force Base, VA 23665 Attn: Randy Born

Lab R	eport No.	35056	
	_		
Date	May 11	2001	

Sample Description:

LAFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(14) Sample #69B, Roof Shingle on Shack Inside of Hanger.

Macroscopic:

(1) 100% of this sample is brown, fibrous, particulate, and tar material.

Microscopic:

(1) The fibrous portion of this sample consists of non-asbestiform materials

(i.e. 20% cellulose, 40% fiberglass). The remaining 40% of this sample is

non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(15) Sample #71A, 1' x 1' Ceiling Tile/Adhesive.

(1)

Macroscopic:

(1) Approximately 80% of this sample is white, fibrous, layered, and particulate

material with paint.

(2) Approximately 20% of this sample is brown, particulate material.

Microscopic:

Approximately 5% of this layer is a mixture of chrysotile and amosite asbestos. The remaining fibrous portion of this layer consists of non-asbestiform materials (i.e. 5% wollastonite, 50% mineral wool). The remaining 40% of this layer is

non-fibrous material.

(2) Approximately 5% of this layer is amosite asbestos. The remaining 95% of this

layer is non-fibrous material.

Total Asbestos Percentage = 5%.

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-PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1% Asbestos.

SIGNED

HEMIST





Customer:

Army Corp of Engineers P.O. Box Drawer 65490 Langley AFB, VA 23665

Lab Report No	35055
Date May 10,	2001

Sample Description: LAFB, Bldg 756

Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

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(1) Sample #72, Exterior Window Caulking Material.

(1)

(1)

Macroscopic:

(1) 100% of this sample is gray, particulate material.

Microscopic:

Approximately 5% of this sample is chrysotile asbestos.

The remaining fibrous portion of this sample consists of a non-asbestiform material

(i.e. 5% wollastonite). The remaining 90% of this sample is non-fibrous material.

Total Asbestos Percentage = 5%.

(2) Sample #73, Exterior Door Caulking.

Macroscopic:

(1) 100% of this sample is gray, particulate material.

Microscopic:

The fibrous portion of this sample consists of a non-asbestiform material

(i.e. 30% wollastonite). The remaining 70% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #74, Exterior Window Caulking.

Macroscopic:

(1) 100% of this sample is beige, particulate material.

Microscopic: (

(1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(4) Sample #75, Exterior Window Glazing Material.

Macroscopic:

(1) 100% of this sample is beige, particulate material.

Microscopic:

(1) 100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED

Page 1 of 2





Customer:

Army Corps of Engineers P.O. Box 65490 Attn: Randy Born Langley AFB, VA 23665

Lab Report No.	35104
Date May 14,	2001

Sample Description:

Army Corp of Engineers Langley AFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(1)	Sample	#73A.	Exterior	Door	Caulking.
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(1)

(1)

Macroscopic:

100% of this sample is brown, particulate material.

Microscopic:

100% of this sample is a non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(2) Sample #74A, Exterior Window Caulking.

Macroscopic:

(1) 100% of this sample is white, particulate material.

Microscopic:

100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

(3) Sample #75A, Exterior Window Glazing Material.

(1)

(1)

(1)

Macroscopic:

(1) 100% of this sample is gray, particulate material.

Microscopic:

(1) Approximately 5% of this sample is chrysotile asbestos. The remaining 95% of this sample

is non-fibrous material.

Total Asbestos Percentage = 5%.

(4) Sample #77A, Brown Stucco Material.

Macroscopic:

100% of this sample is gray, particulate material.

Microscopic:

100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

SIGNED

HEMIST



11850 Tug Boat Lane Newport News, Virginia 23606 (757) 873-0933 – Fax (757) 873-1074

Customer:

Army Corp of Engineers P.O.Box Drawer 65490 Langley AFB, VA 23665

Lab Report No	35055
Date May 10.	, 2001

Sample Description:

LAFB, Bldg 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REMORANGINA

(5) Sample #76, Panels Above Windo	ows.
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Macroscopic: (1)

- Approximately 50% of this sample is gray, fibrous, and particulate material.
- (2) Approximately 50% of this sample is brown, fibrous, and particulate material.

Microscopic:

Approximately 20% of this layer is chrysotile asbestos.

The remaining fibrous portion of this layer consists of a non-asbestiform material (i.e. 30% cellulose). The remaining 50% of this layer is non-fibrous material.

(2) The fibrous portion of this layer consists of a non-asbestiform material (i.e. 70% cellulose). The remaining 30% of this layer is non-fibrous material.

Total Asbestos Percentage = 10%.

(1)

(1)

(6) Sample #77, Brown Stucco Material.

Macroscopic: (1)

100% of this sample is gray, particulate material.

Microscopic:

100% of this sample is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

NOTE: SAMPLES TAKEN BY LABORATORY 4/27/01. TEST REPORT RELATES ONLY TO THE ITEMS TESTED.

- -This report shall not be reproduced, except in full, without the written approval of this laboratory.
- -This report must not be used by the client to claim product endorsement by NVLAP or the U.S. Government.
- -PLM is an analytical technique that may have limited detection attributes for asbestos fibers in vinyl floor tiles. TEM should be considered for tiles with negative results.

Method Detection Limit = <1%.

SIGNED:

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Customer:

Army Corps of Engineers P.O. Box 65490 Attn: Randy Born Langley AFB, VA 23665

Lab I	Report No.	35104	· · · · · · · · · · · · · · · · · · ·
Date	May 14.	2001	

Sample Description:

Army Corp of Engineers Langley AFB, Bldg. 756 Job #01-041S

Method of Analysis:

EPA 600/R-93/116 Method for the Determination of Bulk Asbestos

REPORT OF ANALYSIS

(5) Sample #77B, Brown Stucco Material.

(1)

Macroscopic: (1)

100% of this sample is gray, particulate material.

Microscopic:

100% of this layer is non-fibrous material.

Total Asbestos Percentage = No Asbestos Detected.

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-This report must not be used by the client to claim product endorsement by NVLAP or the U. S. Government. Method Detection Limit = <1% Asbestos.

SIGNED:

CHEMIST